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The New Eastern Colossus

by Freeman Hubbard

T-Motors on the Water Level Route

by Roger Arcara

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Clinchfield No. 6004, a GP-38-2 bedecked in Family Lines paint scheme, was just a month old when this photo was taken at Spartanburg, S.C., in July, 1978. Road is now controlled by CSX Corp.

Photograph by Milton Ashley

RAILROADS ILLUSTRATED

Mail & Express

The first "meet" between an L&N and Chessie locomotive shown on the front cover was arranged especially for this issue of *Railroads Illustrated* by Willis W. Cook, director of Chessie System's public relations department, who also took the photograph. It symbolizes the spirit of cooperation between the various component railroads now operating under the corporate umbrella of CSX Corp. The men clasping hands are George Brown, an L&N engineer with 18 years of service, and, on the right, C.W. Gray, a 12-year Chessie veteran. The photo was taken at Queensgate Yard in Cincinnati on October 22, 1980, just a few days before the merger finally became effective..

Our thanks to Chessie System, the L&N, and engineers Brown and Gray for making the photo possible. A feature article on page 7 goes into more detail about CSX and some of the famous railroads that make up this system.

The back cover shows the lumbering shape of ex-T&P 2-10-4 #610, all 448,000 lbs. of her, as she worked upgrade through the wye at Harriman, Tenn., last October 12th on her next-to-last run for Southern Railway. The photograph was taken by Jerry Mart of Hopkinsville, Ky., who tells us that as the curve was short—almost too short for the 2-10-4 and her two tenders—and the rail light, it was one careful step at a time for this massive engine. Jerry says she rattled the ridges a bit in the process and we can believe it.

We forgot to credit the photographer of last issue's back cover. Gary G. Allen of Glendale, Calif., took the photo of a Sierra Railroad triple-header pulling a mixed freight and excursion train in 1972.

The publisher regrets . . . We apologize for the tardiness of this issue. It was caused by missing a few important deadlines which necessitated a rescheduling at our printer's. The Spring issue is proceeding on schedule, however, and should be out on time in late May. But please allow a few weeks for it to reach you. Postal deliveries vary enormously. Some subscribers reported receiving the Fall '80 issue four days after it was mailed while others had to wait as long as three weeks. To those who follow such things, the speediest delivery was to Virginia. The slowest: New York City.

Our Spring issue, incidentally, will reveal the names of the contest winners who successfully indentified the various steam locomotive parts pictured. And we will have a new contest that is guaranteed to be even more tricky. All we can say now is that it has to do with railroad maps, so brush up on your *Official Guides*. You'll need them for Contest no. 2, appearing next issue.

More pages As part of a continuing effort to improve *Railroads Illustrated* we are considering expanding the magazine by adding eight more pages of the same high-quality heavy coated paper now being used. This change, tentatively scheduled for the Summer '81 issue, would make possible an expanded photo section, more space for Jim Edmonston's "On Track in the Diesel Age," and the possible addition of an electric traction column.

Despite this improvement (which will add around 20% to the magazine's costs) we are determined to keep the cover price at the present $2.00 for as long as possible.

Around the nation Although Congress cut off 5,000 route-miles and six not-well-patronized trains a little over a year ago, Amtrak offset these losses by increasing the number of its reliable rail cars, greatly improving its much-criticized on-time performance, and carrying a record total of more than 21 million passengers in 1980. Amtrak officials are waiting anxiously to see what the Reagan administration will do to federal appropriations which are the national agency's life blood. Seeking new sources of revenue, they are planning to develop Amtrak's vast real estate holdings in the Northeast Corridor more widely and soliciting additional handling of U.S. mail and other message and parcel services.

For years construction engineers and "sand hogs" have been toiling beneath New York City streets and the East River to complete a $100 million tunnel, ostensibly for the Long Island Rail Road, that no train will ever run through! It has to be built, useful or not, because to stop work on it now would imperil the foundation of the 63rd Street subway line under which it is being constructed.

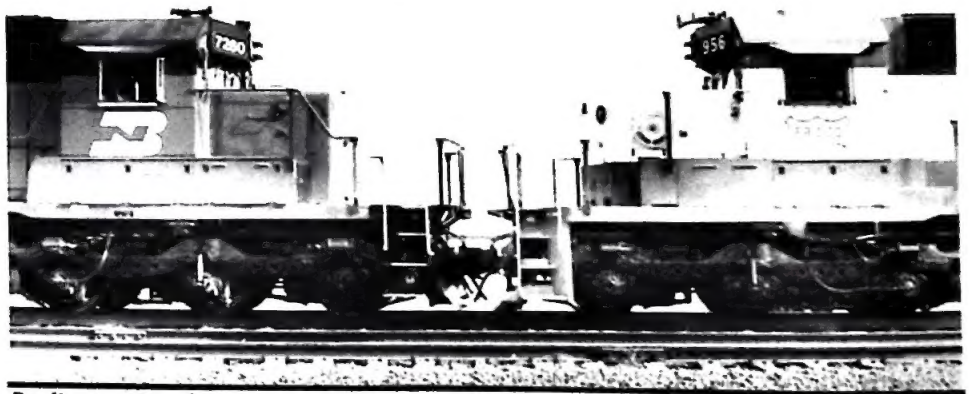
The "ghost tunnel" was part of a project to erect a great LIRR terminal on the city's East Side. The terminal project was abandoned years ago for financial reasons, but the expensive bore is still being pushed ahead. Tunnel work could have stopped safely in 1975. At that time, however, no effort was made to stop it because the proposed terminal seemed then to be a viable idea. Fortunately for the city's taxpayers, the tunnel is now nearly completed. Whether or not this "dead-end to nowhere" will ever be used for anything at all except to support the subway structure above it is extremely doubtful.

Although the Milwaukee Road is seeking to abandon nearly 500 miles of track in Wisconsin, the situation is brightened by the state's policy of buying abandoned railroads, branches, and spurs and leasing them to new shortline operators, including railfan groups. The state retains ownership of the land while local authorities own the tracks and other facilities, and it helps to finance repairs and renovations. The proposed new budget for its Division of Transportation calls for lower highway appropriations and increased funds for mass transit and rail preservation. Douglas F. Heist, the division's administrator, is delighted. "Five years ago," he said, "I did not believe this was possible. But each year the Legislature has been pushing us further into it."

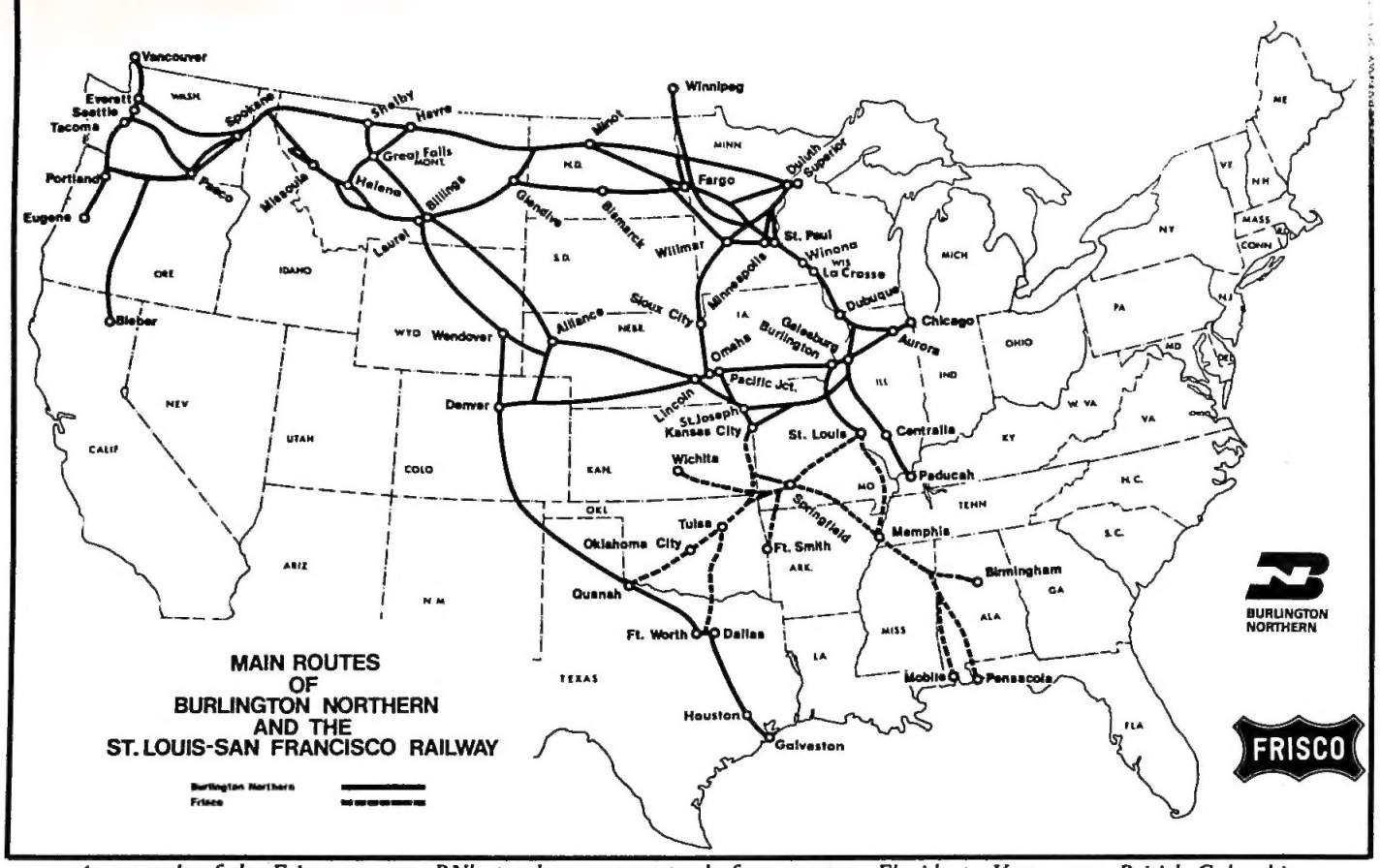
Like many another railroad, the 110.7-mile White Pass & Yukon Route is in financial trouble. This narrow-gauge Canadian line, built at a cost of at least 35 lives and 450 tons of explosives and following the gold-rush trail of 1898 between Whitehorse, Yukon Territory, through a small section of Alaska to Skagway, B.C., is seeking help from the Canadian Government in Ontario.

Part of the problem is that most of its 200 employees are Americans. Federal Industries of Manitoba, a Canadian conglomerate that now controls the road, claims that it incurred $1.6 million in currency losses in exchanging Canadian for American funds to pay these workers.

Burlington Northern Inc.



Burlington Northern meets the Frisco at Kansas City, symbolizing the creation of the largest rail network in American history, with 29,322 route-miles of track.



As a result of the Frisco merger, BN's trackage now extends from western Florida to Vancouver, British Columbia.

In addition, the line must use five-man crews when operating in the U.S., but only three-man Canadian crews while operating in Canadian territory. Federal now says it wants to close the line unless an aid formula for the road is agreed to by Canada's Liberal Government of Prime Minister Trudeau.

Although the WP&Y has a fairly large tourist business, it also hauls food, fuel, and other shipments vitally needed in the semi-wilderness it serves. Its largest customer, accounting for 75% of the line's freight volume, is a lead and zinc mine controlled by the petroleum giant Standard Oil Company (Indiana). But the WP&Y is being hurt by rising costs and the shutdown of another mine it served. So far no aid package has been agreed to, but it is reported that the Trudeau Government is sympathetic to the line's problems and is leaning toward some form of government assistance.

Premiere Issue Issue No. 1 was immediately read from cover to cover. You're off to a good start with a nice mix of subjects and departments. My special fondness is for electric operation, whether heavy mainline or country trolley. Both aspects were nicely covered with the NYC S-class article and the spread of four superb New England trolley views. I couldn't have asked for more.—*Robert C. Gerstley, 153 Pleasant St., South Weymouth, Mass. 02190.*

I read the first issue with much interest, particularly the feature article by Mr. Arcara covering my favorite locomotive, the New York Central S-class.—*Louis Hertz, Scarsdale, N.Y.*

I liked all your articles but as a railroader who's been around some 62 years I'd like to see you add a few old boomer tales.—*Cliff Comer, 3718 E. 4th St., Dayton, Ohio 45403.*

I was particularly pleased with the content, format, and quality of the premiere issue. As a professional historian, I have long felt that most of the current railfan publications are so narrowly targeted, either through concentration on railroad economic and political problems or from an obsession with technical minutiae, that they miss a fairly respectable potential readership market, including the popular history crowd. You seem to have struck a very nice balance.—*Dr. William N. Thurston, Tallahassee, Fla.*

Your "big Premiere issue" is a disappointment to say the least. Except for the color cover, which is almost mandatory today, RI is a pale attempt at replacing the old *Railroad Magazine.* The effort just does not meet the current standards set by the various other publications.—*Ken White, Pownal, Me.*

I was pleased with the content and quality of vol. 1 no. 1. I also was happy to see Jim Edmonston's diesel column which I always liked in *Railroad Magazine.* "Collector's Corner" and railroad fiction are also good ideas.—*Robert C. Albert.*

I'm glad I subscribed and loved the feature on the S-Motors. "View from Wall Street" was novel if a bit too long. But c'mon now, give us a break! Railroad fiction stories have been played out for twenty years now, and five pages of it at that! I'd like to see you stick to your banner: Railroads **Illustrated.**—*Bill McBride, Ossining, N.Y.*

What a pleasure to have another magazine on railroads. The articles of historical note and excellent photographic reproduction are a few of the positive things I liked. I found the news items a bit redundant, though, since most other railfan magazines have them. I think it would be preferable to give an analysis of this news in terms of its effect on the railroads.—*Grandle L. Meador, N&W locomotive engineer, Roanoke, Va.*

Miscellanea International Car Co., a member of the PACCAR group since 1975, claims to be the world's largest builder of cabooses. Its Kenton, Ohio, plant also builds boxcars for transporting paper products and auto parts. Kenton is known as "the caboose capital of the world."

Richard [illegible]sborne, a Philadelphia & Reading draftsman, mapmaker, and construction engineer, built our hemisphere's first iron bridge in a P&R blacksmith shop at Pottstown, Pa., a coal center. It spanned a creek over the Delaware River's west bank opposite Manayunk, Pa., now part of Philadelphia, and was opened May 4, 1854, after a light engine had tested it. One of its girders is preserved today in the Smithsonian Institution at Washington.

Railroad fiction Our fiction story this issue has never been published in magazine form before. It is a slightly adapted version of a short story that first appeared in a now long-out-of-print book *The Nerve of Foley*, published in 1900 and later made into a silent film, *The Runaway Express*, in 1926. Its author, Frank Spearman, is considered by many connoisseurs of this genre to have been one of the finest railroad fiction authors of all time, along with such men as Frank Packard, Cy Warman, Harry Bedwell and E.S. Dellinger.

Spearman was probably the only noted rail fiction writer that never actually worked for a railroad. He became a bank president at the age of 29 and it was in this position that he developed a close contact with many railroad men, particularly in the area around McCook, western Nebraska, a Burlington Route division point where many of his stories are set. One of Spearman's books, *The Strategy Of Great Railroads* (1904), was used as a textbook at Yale University. In later years, Spearman worked in Hollywood writing serials for the motion picture industry. He died there on Dec. 29, 1937.

To illustrate the story we have commissioned an original wash drawing by Herb Mott. Early in his career Mott painted numerous covers for *Railroad Magazine* starting with the December 1949 issue. Today, he is a successful artist, and his illustrations have appeared in such large circulation magazines as *Reader's Digest*, *Popular Science* and *Boy's Life*. Currently, he is working on a series of full-size color paintings for the U.S. Navy's museum branch depicting submarines of the 1905-'10 era. As far as we know, this is Herb's first illustration in a rail-oriented periodical in some 20 years, though he has made numerous color prints of railroad subjects that he sells privately to collectors.

Unusual train ride In 1944, while on furlough, my wife and I boarded Southern Pacific's *Golden State Limited* at Chandler, Ariz., bound for Chicago. On our first night, the train pulled out of Tucumcari, N.M., on the Missouri Pacific Lines; we were sitting in the last passenger coach with the dining car directly behind us. About 1 a.m. I was awakened by a slight noise and when I looked back I saw that the dining car had become uncoupled and was backing away from the rest of the train. I notified the conductor who stopped our train immediately.

Since we were traveling in flat country at the time we had only to back up about a mile, at which point the dining and Pullman cars were recoupled and we started forward. But not more than fifteen minutes later, the dining car again became uncoupled! This time the brakeman was close by and stopped our train quickly. After it was coupled a second time we completed our journey without further trouble.

I've never understood why the train became uncoupled twice and wonder whether any other reader has had a similar experience.—*Richard H. Cartwright, 3926 Woodhaven Dr., Toledo, Ohio 43612.*

Comments and corrections With reference to the Case of the Jumbled Name-Trains in the "Test Your Railroad Knowledge" department (Fall '80), there are actually three name-trains, among the ones you listed, being operated today by Amtrak. In addition to the *Empire Builder* and *Silver Meteor*, which you mentioned, that third one is the *Southern Crescent*.

I was delighted to see the *Nancy Hanks I* and *II* mentioned. Although the latter was discontinued in May, 1971, there are many in this region who would like to see a *Nancy Hanks III*. Despite the petrol fog that Washington seems to be engulfed in, I hope there will be an increasing public awareness for more rail passenger service throughout the U.S.A.—*Henry DiVenuto, 2918 Houston Ave., Macon, Ga. 31206.*

I enjoyed the premiere issue and really like the "Diesel Age" department. I would like to see features on railroads of the south. All I ever read about is Union Pacific, Santa Fe, the Milwaukee, etc. My correction concerns the photo of the Southern F-7's on page 24. The only true F-7 in the lash-up is the fourth unit. The others are F-7AM's, which are F-3's upgraded to F-7's internally. The initials AM stand for After Modification.—*Robert Coltrane, P.O. Box 114, Sophia, N.C. 27350.*

A news item on page 3 of the Fall '80 issue reported Conrail laying off 1,750 employees due to declining industrial production. Happier news on the next page told of the new high-speed French passenger train to start service over a relocated Paris-Lyon line this October. It is 264 miles long compared with the old line's 317 miles, and several years of heavy construction were needed to build it.

Many American lines were built more

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The Railroads: View from Wall Street

Few stock groups in 1980 performed as well as the railroads. While the widely watched Dow Jones industrial average was up a respectable 14.9% during the year, the Dow Jones transportation index rose a startling 57.7% to close at 398.10, highest level in its history. The shares of every publicly-traded railroad company advanced in price in 1980, but there were four real standouts. These were Burlington Northern, which ended the year at 64⅜, up 128.9%; Union Pacific, closing at 78¾, up 118%; Missouri Pacific, 102½, +99.5%; and Santa Fe Industries, 102½, +97.1%. It is a remarkable performance, all the more so since 1979 was also a good year for the rail stocks.

There are several reasons for the group's sharp runup in price. Most important is the interest investors have shown in energy-related issues. It is no accident that the roads mentioned above are all holding companies with thriving oil, gas, or coal subsidiaries; the gradual decontrol of domestic oil prices resulted in sharply higher revenues for them. In addition, the move toward less regulation of the industry, as exemplified by the Staggers Rail Act, was warmly welcomed by the investment community. Many in Wall Street see it as a positive step that will benefit the railroads longer-term, since it will allow them greater flexibility in setting rates. This change in Washington's attitude has caused some institutions to add more railroad securities to their portfolios.

What is the outlook, then, for 1981? Railroad analysts generally project further earnings and revenue gains this year, but at a much slower rate. Richard H. Fischer, head railroad analyst at Merrill Lynch, foresees a modest growth in rail shipments in 1981 but thinks this will be offset by a decline in coal traffic and ever-increasing labor costs. In view of the fact that the rails have outperformed the market for two years, Fischer cautions investors not to get overly enthusiastic but to wait for market reactions before establishing positions. The firm currently likes CSX Corp., Missouri Pacific, and Santa Fe Industries.

Another concern that likes CSX is Standard & Poor's, the bond rating service and investment publisher. CSX is one of the ten stocks S&P selected for superior performance in 1981. It expects the line to earn $8.75 this year believing that its coal traffic will remain strong and that CSX, because of its size, will attract freight volume from competing railroads and trucking lines. Merrill Lynch's estimate for the conglomerate is a more modest $7.25 per share (there are some 40 million shares outstanding).

The railroads' prospects this year depend, as always, on the level of business activity in the nation. With a sluggish economy being forecast by many, at least for the first half, it is doubtful there will be much of an increase any time soon beyond the 910 billion revenue-ton miles posted in 1980. As Mr. Fischer points out, coal stockpiles at utilities are about 30% above normal so traffic will have to come from other areas. Railroad men are consequently hoping for an upturn in auto sales and housing starts (shipping autos and lumber are important sources of revenue for many lines). Both these sectors could get a boost if interest rates decline from from their present high levels, but so far no one has been able to predict when, or if, that will occur.

than a century ago with only minor revisions since, so it is surprising to me that the railroads compete as well as they do. Perhaps Conrail should start rebuilding and relocating some of these old lines to provide faster service and cut operating costs. For example, the New York-Pittsburgh line could be shortened to 363 miles from the present 435 if we did as well as the French.—*Henry Korman, Longview, Wash.*

The caption beneath the night shot of Cincinnati Union Terminal in the photo section stated that no train had approached the edifice since 1972. Actually, both Amtrak trains out of Cincinnati, the *Cardinal* and *Shenandoah*, pass right behind the terminal on old tracks nos. 1 or 2 as they make their way in and out of the Queen City. These two tracks are also the main freight connections between Southern Railway and B&O-C&O and are pretty busy.

The old platform alongside track 1 is still there, minus the canopy, and has been used by Chessie Steam Specials, most recently on Nov. 1-2, 1980. Also, last Oct. 18, Kentucky Railway Museum used it when they ran a special with their BL-2 from Louisville. The new shopping mall mentioned in the caption was built by the Joseph Skilken Organization of Columbus, Ohio, and is well worth a visit to see what can be done with an unused station. Now we must get Amtrak back in there where they belong!

May I add that yours is one of the finest magazines on railroading yet. The color cover was magnificent and it was nice to see Jim Edmonston back in print. Jim, by the way, is one of our members and former editor of our club paper "Headlights and Markers."—*Robert D. Hooper, Treasurer, The Cincinnati Railroad Club, 6420 Kennedy Ave., Cincinnati, Ohio 45213.*

I worked a total of 47 years on the Wheeling & Lake Erie, Nickel Plate, and N&W. Now I am connected with the Cuyahoga Valley, an excursion line running between Cleveland and Akron. It is amazing to note the interest there is in trains among all types of people, especially a steam train. When I go through the coaches to talk to people they want to know everything. Then, as the train goes over the line passing roads and small communities, people are photographing and waving. Our concession car with its rail memorabilia for sale is always crowded.—*William F. Meyers, 17824 Dalewood Ave., Maple Heights, Ohio 44137.*

I enjoyed the first issue of *Railroads Illustrated* and look forward to many more. It is a first class production. I did note an inaccuracy, however, which should be commented upon. Joseph Tomlinson was credited with being the designer and builder of the Ashtabula bridge, and later a suicide. Such is not the case.

While Mr. Tomlinson did handle the day-to-day details of planning and erecting the bridge, the ultimate responsibility lay with Amasa Stone, Jr., president of the Lake Shore & Michigan Southern. *The Ashtabula Disaster*, by Rev. Stephen D. Peet (Chicago, 1877) has this to say on the subject:

> This bridge was erected in the year 1865, by Mr. Tomlinson, according to orders and patterns given by Mr. Amasa Stone, then president of the road. It was built after the pattern of the Howe Truss, but containing some elements introduced by the president himself.
>
> In its erection Mr. Tomlinson, the engineer, differed with the president so much that he resigned his postion, and even Mr. Charles Collins (chief engineer of the L.S.&M.S.) never acknowledged that it was a work of his inventing, or a bridge receiving his approval. Before the committee, appointed by the legislature of Ohio, he acknowledged that it was an "experiment," and even when it was in process of erection he gave no orders, but rather left the responsibility with the president.

While Mr. Tomlinson did not commit suicide, both Mr. Collins and Mr. Stone did. Mr. Collins died by his own hand less than three weeks after the disaster, and Mr. Stone followed him a little over six years later.—*Charles M Smith, president, New York chapter, Railway & Locomotive Historical Society, New York City.*

The New Eastern Colossus

CSX Today and a History of Its Predecessor Lines

by Freeman Hubbard
Editor Emeritus,
Railfan & Railroad Magazine

It was inevitable. A nation run by Big Government, Big Business, Big Labor Unions, Big Armaments, and Big Taxes has come to expect gargantuan mergers such as the new CSX Corp. Those cryptic initials, unparalleled as a corporate name in railroad history, mean "Chessie, Seaboard, much more," X being the multiplication symbol. They reflect the consolidation of Chessie System, Inc., with Seaboard Coast Line Industries, Inc. The new company is a conglomerate of 17 railroads and many other industries or businesses, with total assets of $7.4 billion. Its route-miles of track in 22 states, the District of Columbia, and the Canadian province of Ontario, total 27,477. Its track maintenance alone keeps an army of gandy dancers busy.

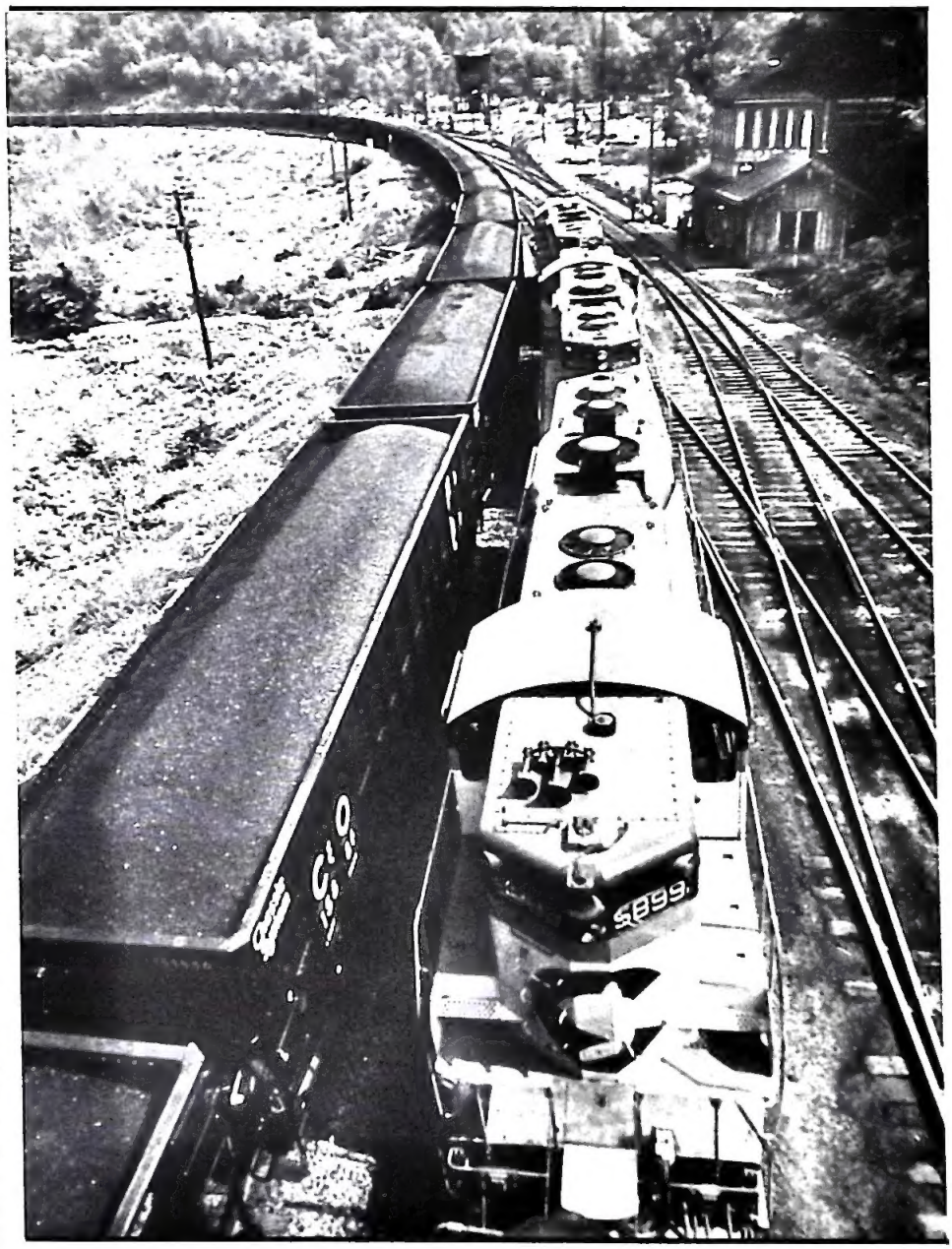
The Interstate Commerce Commission approved this merger on September 24, 1980, twenty days before President Carter signed the Staggers Rail Act, passed by Congress, deregulating the American railroad industry to some extent, particularly with regard to the ICC's ratemaking authority.

The merger, effective as of last November 1st, created the nation's largest rail network, but only for 20 days. On November 21, the U.S. Fifth Circuit Court of Appeals ruled in favor of the Burlington Northern-Frisco merger and the two roads filed incorporation papers in Delaware that same day. The consolidation crowned a new mileage champion with 29,322 route-miles of track. But CSX is still the colossus of roads in the East.

Before examining the history of some of its predecessor lines, let's take a closer look at the present-day components of this vast eastern rail network.

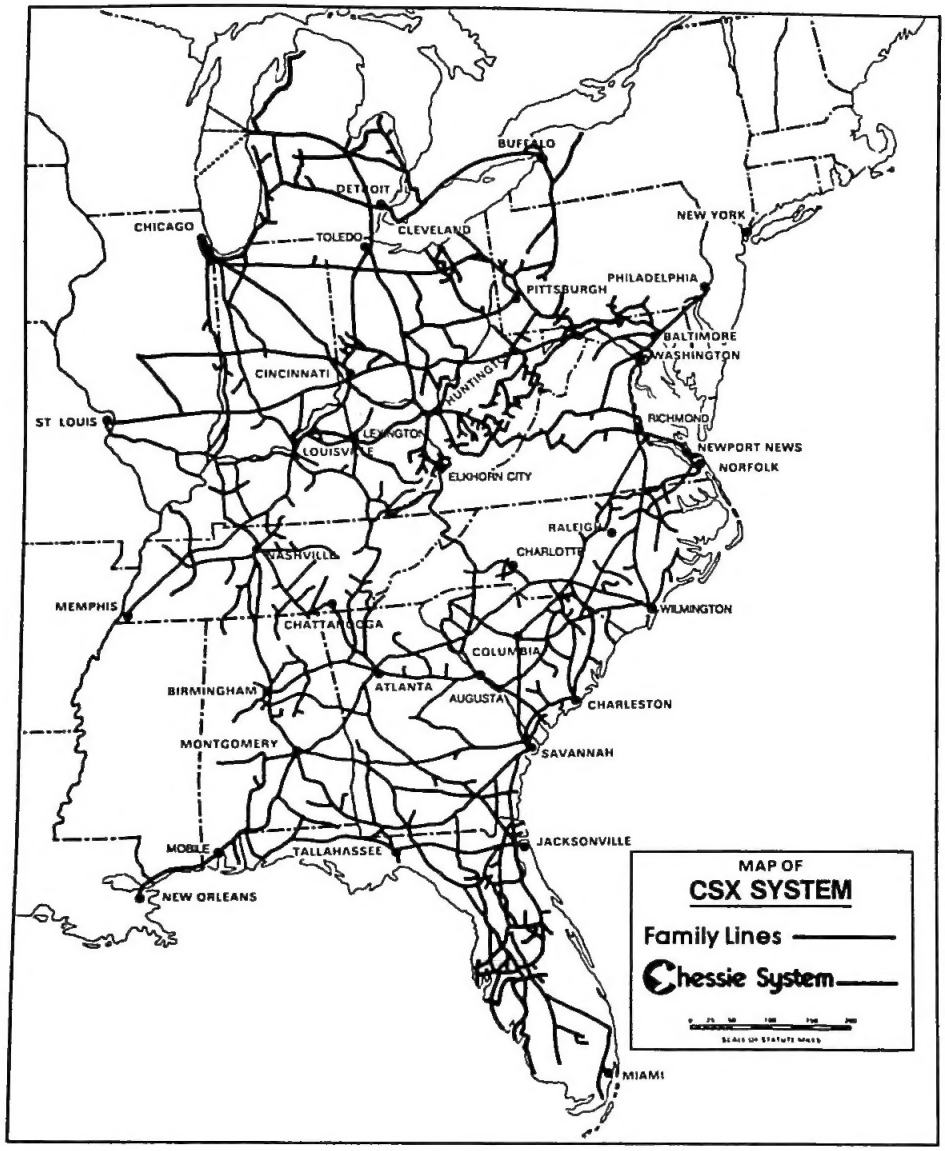
Chessie System is a holding company that controls six railroads extending from the Atlantic Ocean to St. Louis and from West Virginia, with its rich coalfields, into Canada. These roads are the Chesapeake & Ohio, the Baltimore & Ohio, the Western Maryland, the B&O Chicago Terminal Railroad, the Staten Island, and the Chicago South Shore & South Bend. Also under the corporate umbrella are the Western Pocahontas Corp. (coal land development), Chessie Resources, Inc. (forest resources, real estate, investments), and the White Sulphur Springs Co. (which owns West Virginia's famous Greenbrier resort hotel).

Seaboard Coast Line Industries, the other holding company in the colossus, controls ten southeastern railroads, all in the Family Lines System. There are the Seaboard Coast Line, the Louisville & Nashville, the Clinchfield, the Georgia, the Western Railway of Alabama, the Atlanta & West Point, the Durham & Southern, the Gainesville, the Carrollton, and



Coal is an important commodity for CSX, which hauls 20% of total U.S. production. Here, Chessie diesel units displaying the system's cat emblem pass a C&O coal train at Quinnimont, West Virginia.

CSX Corp.



Components of the colossus are still being operated as separate units. John T. Collinson remains president of the Chessie System, which is operated from Cleveland and Baltimore. The Family Lines continues under the capable direction of its president, A. Paul Funkhouser, headquartered in Jacksonville, Fla. The CSX announced that "employees will benefit from this merger because we will be able to continue to offer jobs as viable railroads. We will be better able to compete with other forms of transportation, and the extent that we attract new business will enhance added job opportunities and security for employees."

This new setup is quite different from Penn Central, once America's largest rail conglomerate. As we all know, PC failed badly, partly because of mismanagement, and was turned over to Conrail. New York Central's last president, Alfred E. Perlman, who shared the PC management but in a secondary role, is a highly competent executive, yet he was handicapped on PC by the refusal of former Pennsylvania Railroad brass collars to work in harmony with him. It seems that top ex-Pennsy officials wanted to "hog the whole works," as one historian put it, in addition to perpetrating some financial deals which later took them into court as defendants.

CSX is not a comparable case. Both Chessie and Seaboard are well managed. Hays T. Watkins, chairman

the Columbia, Newberry & Laurens. Also controlled by SCLI are diversified companies engaged in publishing newspapers, developing real estate, coal land, and forest resources; corporate aircraft management, oil and gas exploration, data processing, and resort hotel operations.

In addition, CSX Corp. controls the Richmond, Fredericksburg & Potomac Railroad, a "bridge line" linking the North with the South.

CSX controls Chessie and Seaboard through an exchange of stock. Under the agreement each share of Chessie common stock was converted to one CSX common share, while each share of Seaboard common was converted to 1.324 shares of CSX common. According to top executives, the merger "will produce net pre-tax benefits of approximately $70.3 million per year, beginning in the third year after the merger."

Heads of CSX Corp: Prime F. Osborn (left), chairman, and Hays T. Watkins, president.

Present-day Seaboard Coast Line (now CSX) piggyback train wheeled by nos. 2010 and 2008. CSX Corp.

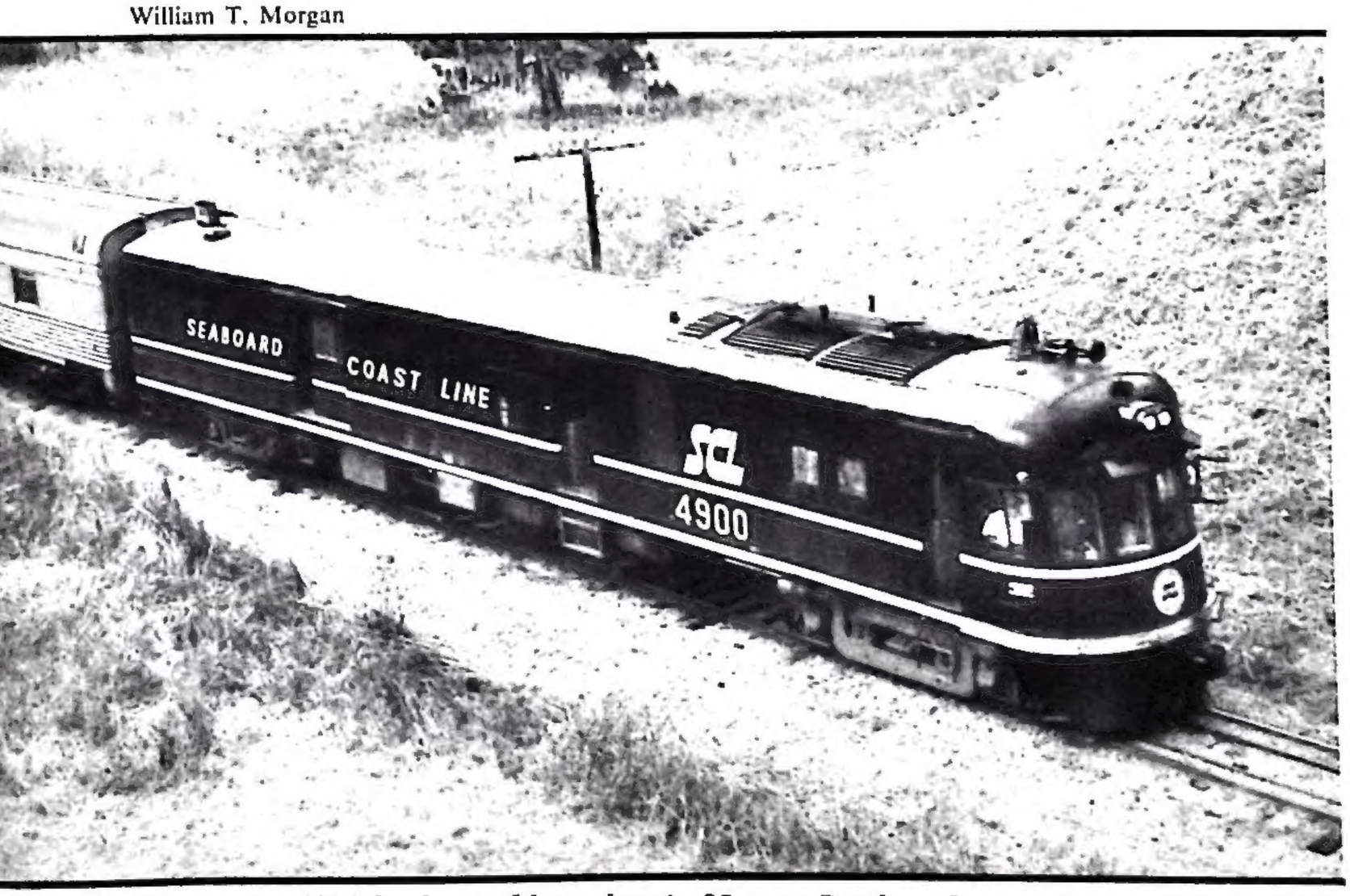
and president of Chessie, became president of CSX, while Prime F. Osborn, a five-medaled veteran of World War II and chairman of Seaboard, is now chairman of the colossus. Unlike PRR and the Central, there is relatively little overlapping of mileage on the two components of CSX and no history of bitter rivalry between them.

Preliminary studies that led to the merger were begun in 1970. "Our studies showed we were thoroughly compatible and complementary," Watkins and Osborn said in a joint statement, "and the spirit of cooperation between both companies bodes well for the future of our enterprise."

At the ICC hearings Chessie and Seaboard witnesses claimed that the proposed new system's operational benefits would save 14,600,000 gallons of fuel oil annually and attract new traffic estimated at more than $96 million a year. They also said it would increase the number of run-through trains and that the efficiency of classification and utilization of cars would permit the building of at least 5,000 new freight cars for the Louisville & Nashville at C&O's car shops in Raceland, Ky. This additional car supply, it was testified, would recapture much coal volume that had been lost to truckers.

The merger application was filed January 12, 1979. Several major roads, including the Norfolk & Western and the Southern, opposed it. Withdrawal of their opposition cleared the way for the amalgamation. (The Southern and the N&W have their own merger pending.) At one point Southern Pacific began buying SCLI stock in a hostile takeover attempt, but that move failed.

William T. Morgan



Motor car 4900 leads northbound train 98 near Bowling Green, Fla., on Feb. 7, 1971.

The ICC authorized the CSX merger—in the extraordinarily short time of less than two years—because, it said, the new system promised to improve public service without reducing rail competition. The Commission added that CSX, the first rail line to link the industrial Northeast, the Great Lakes region, and the Southeast, would provide shippers with single-system service.

Points of interchange between C&O and Family Lines carriers are Richmond, Va., headquarters of the colossus; Elkhorn City, Covington, Louisville, Lexington, Maysville, and Winchester, Ky.; LaCrosse and Michigan City, Ind.; and Chicago.

Interchange points between B&O and Family Lines carriers are Cincinnati, Louisville, Chicago, East St. Louis; and Enfield and Hilldale, Ill. Also, Alida, Mitchell, Roachdale, and Vincennes, Ind. The only RF&P interchange with B&O is at Potomac Yard in Alexandria, Va.

CSX is a freight-only road. Amtrak handles the passenger service over its lines. Among the connecting freight corridors of CSX are Philadelphia to Jacksonville, Philadelphia-Atlanta, Detroit-Jacksonville, Pittsburgh-Birmingham, Alabama, Toledo-Atlanta, Detroit-Savannah, Ga., and Detroit-Baltimore. CSX's 39,000-car merchandise fleet is one of the nation's largest. No transportation system on earth hauls more coal than CSX. On Chessie roads alone are located some 400 mines; 100 more are either being developed or are in the planning stage. In 1979 Chessie hopper cars hauled 96 million tons of coal, of which 79 million originated on-line. Coal makes up about 40 percent of Chessie's business.

That commodity also provides about 20 percent of the Family Lines revenue, most of it from mines served

by the L&N and the Clinchfield. Three-quarters of this tonnage is sold to electric utility plants. There are estimated reserves of 12 billion tons of high quality, low-sulphur coal along the Family Lines. This system is also a major hauler of phosphate rock and superphosphates, used largely for making fertilizer; also forest products, paper, construction materials, chemicals, food, steel, and grain.

The "Family" serves 38 ports and offers intermodal services at 52 terminals where piggyback ramps and container facilities are located. Its piggyback trailer fleet consists of nearly 12,000 units. Also credited to the system are some 127,000 freight cars, nearly 2,600 locomotives, and about 6,000 miles of welded rail.

Chessie transports considerable Midwest grain and steel. A Chessie innovation is tough plastic covers locked onto hoppers for seasonal grain hauling. Other Chessie markets are served by hopper and auto-parts cars, and tank cars for chemicals and other liquids. Last year Chessie moved nearly 3.5 million carloads of freight across its vast territory and racked up 24,835,459 train-miles. The service to the nation resulting from all this activity and the number of man-hours of work involved stagger the imagination.

Chessie's carbuilding plant at Raceland boasts an assembly line capable of turning out up to 32 hundred-ton-capacity coal hoppers a day. Current production is 8 cars a day. In the 5-year period ending December 31, 1980, the shops built more than 10,000 new coal-carrying cars and repaired 20,230 others.

Chessie's history began in 1827 with the chartering of the Baltimore & Ohio Railroad. In 1828 horses pulled America's first train on strap-iron rails set in granite from Mount Clare station, now part of the B&O Museum in Baltimore. The year 1980, when CSX was created, marked the 150th anniversary of B&O's *Tom Thumb*, the first practical locomotive built in America, and the 8th anniversary of the Chesapeake & Ohio's acquiring control of the B&O.

Meanwhile, the C&O had begun life as a Virginia short line, founded in 1836, that was expanded to reach the Ohio River after the Civil War, under the influence of Collis P. Huntington, longtime president of the SP. During the present century it reached westward to Chicago and northward to Michigan and Ontario. Both B&O and C&O have direct corporate links to canal companies founded in 1785 by George Washington, one on the James River in Virginia and the other on the Potomac.

Another of Chessie's major components, the Western Maryland, extends westward from Baltimore and forks at Cumberland, Md., to terminate at Connellsville, Pa., and Webster Springs, W. Va., in the coalfields. This road was nicknamed "the Mason and Dixon Line" because it nearly parallels the Pennsylvania-Maryland boundary that before the Civil War popularly separated the North from the South, or the free from the slave states (although slaveholding Maryland never seceded).

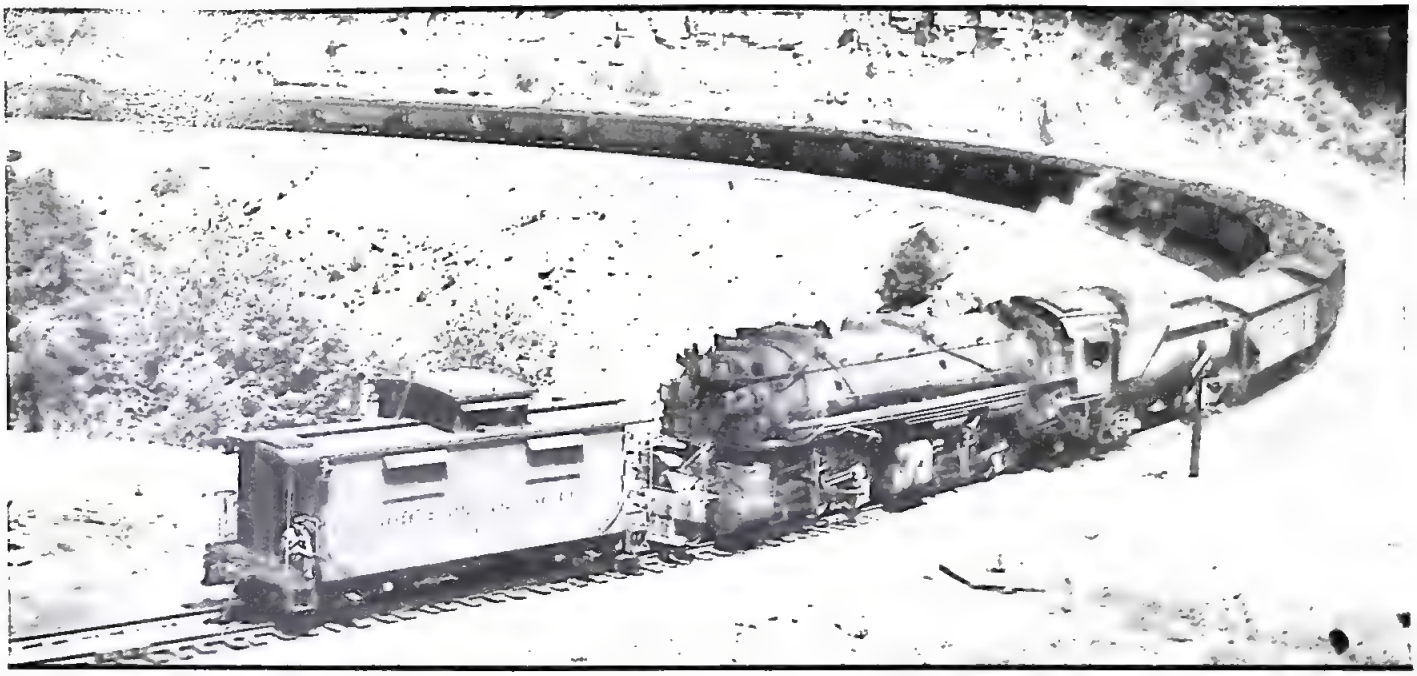
The WM was chartered on May 27, 1852, as one of several lines in Maryland, Pennsylvania, and West Virginia that were fused into a system designed especially to transport coal and high-priority merchandise from the Midwest to the port of Baltimore. Its tracklaying began in 1862. A year later the Union Army commandeered the WM for five days as a supply line for the Battle of Gettysburg. Five months after the battle, President Lincoln rode over lines that subsequently became part of the WM to deliver his Gettysburg address. A "mystery" photograph taken at Hanover Jct., Pa., on that trip shows several top-hatted men, one of whom is believed to have been Lincoln, but the identification is dubious.

The Western Maryland, developed from 30 railroads by mergers and reorganizations, was expanded and modernized by John Mifflin Hood, its president and general manager from 1874 to 1902. During his long administration, WM claims, not one passenger was maimed or killed. In 1912, company engineers building the Connellsville extension uncovered one of the three most important fossil deposits ever found in the United States.

The WM climbs the Allegheny Mountains, including Black Fork grade, an operating challenge virtually unequaled in the East, with 10 miles of unrelieved 3.05 percent grade reaching in some places a maximum of 3.85. In steam days, 2-8-0 engines could handle only ten loads (mostly coal) up this steep hill. As many as 8 to 10 locomotives were sometimes used on a single freight on this grade, half that number being cut into mid-train and the rest divided between front and rear. Although largely a freight line, the WM for four years operated crack passenger trains between Baltimore and Chicago. At one time it was the only road carrying sightseers to the Civil War battlefields of Antietam and Gettysburg. It is also one of the very few roads that ever pictured a locomotive on its trademark. (Two of the others were the Chesapeake & Ohio and the RF&P, all three now being controlled by CSX.)

The Chessie System's name was adopted in 1972 from Chessie, the kitten mascot created and widely publicized by C&O's public relations department to advertise its comfortable overnight passenger service, with the slogan "Sleep like a kitten." For years the cat was pictured as placidly occupying a Pullman berth, but in advertisements published during

Artist's conception of the first Baltimore & Ohio train at Mount Clare station, Baltimore, Md., in 1830. The old depot is still standing. Author's collection



Chesapeake & Ohio (now CSX) coal drag rounding a curve in the days of big steam power. Caboose on head end provided close communication between train and engine crews. Author's collection

World War II it was shown curled up underneath a berth on which was laid a military cap. The scene was entitled "Lower 9 has gone to war." The company received about 40,000 letters requesting copies of the calendar on which that illustration appeared. Today the cat appears in silhouette as "Chessie-C" on freight cars, locomotives, and company literature.

Another C&O ad in World War II shows a man looking out a window of his home at night in a tranquil small-town scene with a train in the background. Accompanying it is a prose-poem of high literary value entitled "Listen to the Night, America":

It's at night
In the still moments of the night,
That you hear the pulse-beat of America.

Listen . . . From across the sleeping countryside
Comes the steady, rhythmic rumble of the trains,
The great, husky trains of America.
They've talked to you since childhood.
They've told you, in the lonely silence of the night,
Of far-off places, of romance and adventure.
But their rhythm's faster now,
And their whirring wheels speak different words.
Their cargo now is fighting tools for men of freedom
And through the night their rumble says —
We'll get 'em there . . . we'll get 'em there . . . We'll get 'em there.

Listen to the night, listen to the rumble of trains at night
And you'll hear the strong surging pulse-beat of America!

Around the turn of the century 216 small roads were merged or combined to form the Atlantic Coast Line and the Seaboard Air Line, which in 1967 were consolidated to form the Seaboard Coast Line. By 1972 SCL Industries had bought all of Louisville & Nashville's common stock, together with several short lines, and set up the Family Lines System.

L&N, nicknamed "The Old Reliable," has about 6,600 route-miles of track in 13 states of the Central South and Midwest from the Great Lakes and Ohio River Valley to coastal plains bordering on the Gulf of Mexico, and is the second-ranking member of the Family Lines. Over the years, L&N absorbed 57 other roads by purchase, lease, or construction, but it began life as a two-state railroad chartered in Kentucky on March 5, 1850, to build from Louisville to the Tennessee state line (it was also chartered in Tennessee to run north from Nashville to join the Kentucky segment). Despite opposition by stagecoach and steamboat interests, construction was started in 1855, with crossties of white oak, cedar, and black locust laid 2,700 to the mile.

Its original 6-foot gauge was changed to five feet before the first train ran in 1855, and was narrowed still further in 1866 to 4 feet 9 inches. Tunneling mountains and bridging two rivers slowed the tracklayers. One bridge, over the Green River, 1,800 feet long with its approaches, was then America's longest iron bridge. At that time the entire line was single-tracked, like nearly all other railroads. On October 27, 1859, L&N's first through train, flag-bedecked, ran from Louisville to Nashville in 10 hours.

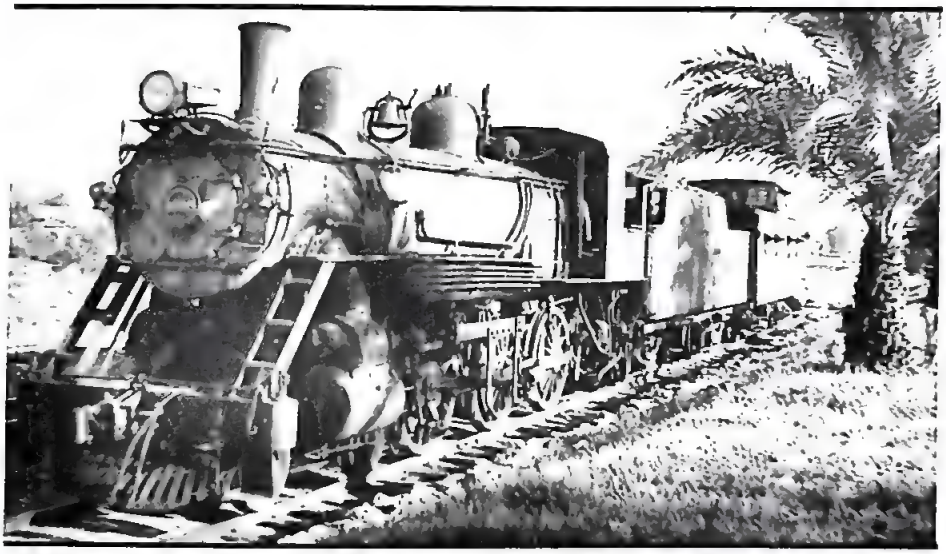
As a vital link between the Ohio River and the Deep South, this road was destructively fought over in the Civil War. L&N president James Guthrie and virtually all L&N directors and stockholders were natives of either Kentucky or Tennessee. Guthrie decided that the L&N, like the border state of Kentucky, should be neutral. That was impossible because half the line was in a neutral state, the rest in a seceded state (even Abraham Lincoln had three Kentucky-born brothers-in-law serving in the Confederate Army).

During the war's early weeks the young L&N prospered. Most of its traffic moved into Tennessee for the South's needs. But many Kentuckians resented shipping their products into the Confederacy. They ripped out several miles of track, blew up bridges and culverts. The company assigned armed guards to protect its rails and trains in home territory.

When the war started in April, 1861, the L&N had 269 miles of track, 30 engines, 20 passenger and freight cars, and 6 cabooses. Three months later, Tennessee's governor seized all of the L&N rolling stock that was then in his state: 5 engines and about 75 cars. Guthrie then stopped all southbound operations at the state line. In September the Confederates seized most of the Tennessee trackage.

In 1967 the L&N built this bridge spanning the Bay of St. Louis near Gulfport, Miss., to replace an older outmoded bridge damaged by a hurricane. L&N photo by Wm. Tayse

Author's collection



"Caboose hop." Atlantic Coast Line 4-6-0 No. 1008 at Largo, Fla., in Feb. 1939.

Union troops pushed back the "boys in gray," who retaliated by destroying considerable railroad property.

General William T. Sherman's forces cleared the line as far south as Elizabethtown, Ky., while L&N employees repaired much of the damage. The Federal Government sent rolling stock from other roads to replace the lost engines and cars, and Union troops guarded the trains for the duration of the war. The border-state railroad helped so much in General William T. Sherman's march to the sea that it was a major factor in winning the war.

Afterward, the railroads in the South, with but one exception, the L&N, were so decrepit or poorly managed that the nation took over and operated them. Credit for the exception is due largely to a Teutonic giant, Albert Fink, 6 feet 7 inches tall, whose promptness in restoring service after war damage enabled the line to avoid a military takeover. Fink had great mechanical and inventive ability. He invented a truss bridge, became L&N chief engineer and later its vice president.

L&N launched a period of expansion. In 1871 it entered Memphis, a year later Montgomery and the coal-and-iron-rich city of Birmingham. In 1880 it reached the Gulf ports of New Orleans, Mobile, and Pensacola, and in 1881 St. Louis and Cincinnati. Its premier train, the *Pan American,* an all-Pullman express between Nashville and New Orleans, was unique in that its sounds were broadcast live daily except Sunday by Nashville radio station WMS for nearly 12 years, until it was discontinued in 1945.

The L&N bought its first two engines, 4-4-0's with 60-inch driving wheels, from Niles & Co. of Cincinnati in 1855. Ninety-five years later it took delivery of its first five diesel-electric units for general freight. On November 1, 1956, although it was a major coal-hauler, L&N became fully dieselized—with a single exception. Its coalburning No. 1882 was still in active service on "lend lease" to an L&N affiliate, the Carrollton Railroad, an 8-mile Kentucky freight line (today part of CSX), which made its final steam run in 1957.

One of the L&N's major acquisitions was the Nashville, Chattanooga & St. Louis, a Class I road famed for the Andrews raid of 1862 (through an NC&StL predecessor, the Western & Atlantic). L&N got control of the NC&StL in 1920, and consolidated its 1,200 miles in 1957. Other major acquisitions were portions of the Chicago & Eastern Illinois and the Tennessee Central, both in 1969, and the 135-mile Monon in 1971. The C&EI and the Monon provided L&N entry into Chicago.

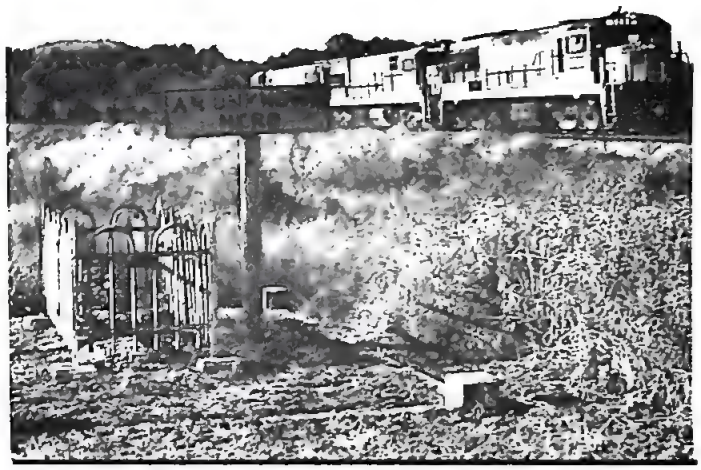
Another Family Lines affiliate, the Georgia Railroad, had at least two distinctions. First, from 1836 to 1881 as the Georgia Railroad & Banking Co., it was authorized to issue its own currency and handle other financial business as well as operate a railroad. Second, its first locomotive, the diamond-stacked, woodburning 4-4-0 *Florida,* was hauled slowly over dirt roads, without rails, by mule teams from Madison, Ga., to Atlanta on Christmas Eve, 1834. On May 21, 1837, the locomotive pulled the first train ever to run in that state.

Chartered December 21, 1831, the Georgia Railroad was opened to the public in 1842 and its 171-mile mainline was completed to Atlanta on September 18, 1845. Its builder and chief engineer, John Edgar Thompson, later became the Pennsylvania Railroad's third president. Immediately after the Civil War the Georgia Railroad, although sadly impoverished, carried more than 100,000 discharged Confederate soldiers back to their homes without charge. Besides acquiring a branch line to Macon, the road became principal owner of the Atlanta & West Point Railroad and the Western Railway of Alabama, both of which became part of the Family Lines, now CSX.

Finally, a coal-carrying road and an important part of CSX is the Clinch-

Eastman Kod.

Author's collection



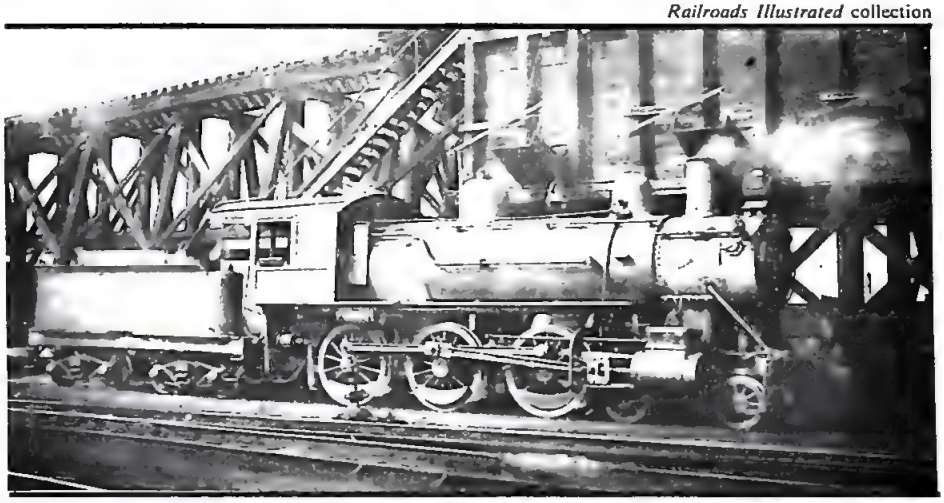
CSX inherited this trackside grave of a Civil War soldier near Marietta, Ga., from the old Nashville, Chattanooga & St. Louis Ry. (later L&N). The marker says "An Unknown Hero." At left, a picturesque C&O depot at Ruthven, Ontario, in steam days.

field Railroad. It runs north-south in five states between Elkhorn City, Ky., and Spartansburg, N.C., with general offices and shops at Erwin, Tenn. Besides moving coal and other freight in its own right, it is a "bridge" line between the Atlantic Seaboard and the Great Lakes.

Its history began in 1831 with the building of a wagon road over approximately the present rail route. Eighteen different companies were organized to build a railroad in that area. They all flopped. But one of them, the Charleston, Cincinnati & Chicago, was reorganized in 1908 and by 1912 had 80 miles of track. Laying tracks across two mountain ranges was a major challenge which engineers met by building two very long tunnels, 53 shorter tunnels, and five miles of bridges and viaducts. For heavy coal drags on steep grades the Clinchfield used 2-6-6-2, 2-8-8-2, and 4-6-6-4 Mallets.

The line was leased jointly to the Louisville & Nashville and the Seaboard Coast Line, later becoming part of the Family Lines System, now controlled by CSX Corp. It has been fully dieselized and freight-only since May 2, 1955, except for the ownership of a 4-6-0 steam loco with which it occasionally operates day-long excursions on weekends from late September until early November. Its mountain scenery and autumn foliage are spectacular.

Railroads Illustrated collection



Richmond, Fredericksburg & Potomac No. 30 at Richmond, Virginia, on August 6, 1916. Today, the RF&P is controlled, but not owned outright, by CSX.

Aside from 1980's two big mergers, CSX and Burlington Northern-Frisco, mergers are also pending between the Union Pacific, Missouri Pacific, and Western Pacific and between the Southern and the Norfolk & Western which may—but is not likely to—include the financially weak Delaware & Hudson, which wants to be merged.

Does this trend toward consolidations suggest to you the possible future nationalization of America's railroads? Some years ago, you may remember, Great Britain's network of shorter lines was fused into four major systems which, in turn, became the present heavily-indebted British Rail. Could a similar amalamation eventually come to pass in the United States?

Before you answer, bear in mind that this country has already flirted more than once with nationalization by temporarily taking over its railroads as a wartime emergency measure. Moreover, the United States is the only nation on earth whose rail network is not federalized (or partly so, as in Canada). With the formation of CSX Corp., in the continuing drift toward big mergers, and with the taxpayers' financing of Amtrak and Conrail, you cannot lightly rule out an eventual nationalization of our rails, like it or not, which we don't.

Railfans are not happy to see famous old railroad company names being wiped out. Even so, the trend toward consolidations is not only inevitable but also, under the pressure of inflation and economies of scale, probably a good thing for the roads themselves, their employees, shippers, and stockholders, and the nation's economy as well. As for passenger service, well, that is another story.

T-Motors on the Water Level Route

It is June 9th, 1938, and New York Central T-3a No. 275, built in 1926, is wheeling the 13-car Ohio State Limited *northbound around the curve at Kingsbridge, approaching Marble Hill Station, in New York City. This is typical of the service for which these locomotives were designed. The Harlem Ship Canal at right betokens the railway's nickname: "The Water Level Route."*

The Box-Cab Electric Appears on the New York Central

by Roger Arcara **Photographs by George Votava**

It has been said that success breeds success, and the New York Central System's locomotive development through the years bears out the truth of the adage. In the previous issue of this magazine, the Central's first type of electric locomotive was described; now, let us see how the success of the S-type led to the development of the company's next electric motive power, the T-type.

Railroads were burgeoning throughout the United States in the early years of this century. Co-incident with the physical expansion of the nation, and playing the greatest part in it, America's railroads had linked just about all populated (and many unpopulated) parts of the country in the decades following the Civil War. Mergers and affiliations had made it possible to travel long distances with few changes of trains, and great improvements in passenger cars had progressively increased the comfort of these journeys. Bridges and tunnels were bringing trains directly into large metropolitan stations, and travel had been made increasingly more convenient by the flanged wheel on the iron—and later the steel—rail.

By the time the New York Central's electrification of its New York City Terminal Zone was under way, in the 1900's, trains had become longer and heavier, and were becoming constantly more so as a nation of settlers became a nation of travellers. Ever more powerful steam locomotives were developed to meet the demands of ever more passengers, requiring ever longer trains, and competition amongst various railways serving the same major cities led to ever faster schedules.

The electric locomotives first developed for the New York Central proved more than adequate for their tasks, and soon demonstrated even greater capacity than they had been designed for, but there was a practical limit to their usefulness. The four powerful, gearless motors gave each engine good overload capacity, but doubleheading became frequent as trains became longer, and more locomotives were needed which could cope with the job singlehandedly. Not only were through trains becoming longer, and sometimes being run in sections, but the New York Central's growing suburban traffic was soon to reach the era in which trains of 12, 14, even 16 coaches were operated during rush hours. Multiple-unit trains had been introduced to handle both local and express service within the electric zone (and, on a few runs, were pulled by steam engines for some distance beyond), but all long-distance trains and many suburban trains required steam-cars for operation past Harmon and North White Plains. As fortitudinous as the S-class electrics were, a more powerful type was needed.

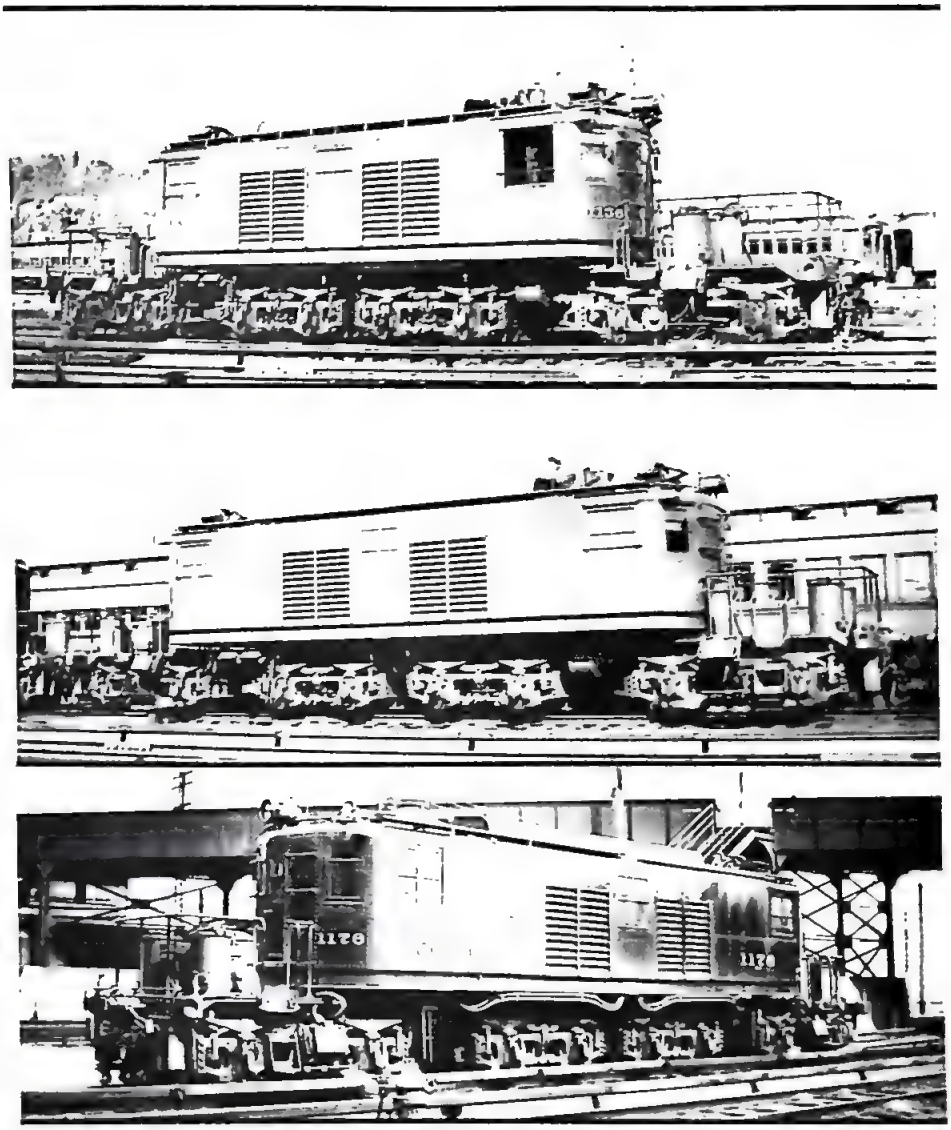
The result was the development of the box-cab T-class, borrowing from the earlier design but greatly expanding it. Whereas the S-type had 4 motors powering 8 wheels, the T-type had 8 motors powering all 16 wheels. Let us make that clear, for a superficial glance at a picture of a T-type may give the impression that the unit had a pair of motor-trucks under the cab, and a pair of pony trucks, one at each end. Not so. All four trucks were fully powered, being equipped with gearless bi-polar motors with the armatures built onto the axles. The motor design was similar to that of the S-type, but slightly smaller. In the S-type, the rigid engine truck contained all 4 motors, and the field windings were arranged so that the magnetic field was continuous over the length of the truck. The motors were open to the air, having only natural ventilation, no blowers being used.

In the T-type design, however, the 8 motors were arranged in 4 trucks, 2 to

a truck, with each pair of motors having its own magnetic field, more highly concentrated than in the earlier design. Forced-air ventilation was considered necessary for this arrangement, to avoid excessive build-up of heat in the motors. One reason for the adoption of a box-type cab was to provide space for the electrically-powered blowers and the ducts to direct the air blasts to the traction motors. Louvres on the cab sides, and the characteristically continuous "whoooosh" of the air in the blower system, gave testimony to the presence of the forced-air cooling system.

An ingenious part of the T-class design was the articulation of the trucks. All four bogies were connected in a special arrangement, so that the entire pull of all 16 wheels was transmitted to the coupler through the truck-frames, not through the frame of the cab at any point. In order to distribute the weight properly over all axles, the outer truck at each end and its adjoining inner truck were spanned by a longitudinal bolster, which was rigidly attached to its inner truck, and which rested on a kingpin on the swivelling outer truck. The span bolsters were connected to each other by a massive hinge. The cab rested on a kingpin on one span bolster and on a sliding plate on the other bolster. This arrangement permitted the cab some back-and-forth movement as the trucks adjusted themselves to the track curvature, while neither stressing the cab nor allowing it to slew badly at speed.

With the weights of the sub-classes of T-motors varying from about 126 tons to about 146 tons, and with the lighter ones being not much heavier than the 4-motor S-3 design, gaining sufficient adhesion at the rails to start a heavy train without slipping the wheels was a problem. The solution was that old steam-locomotive and trolley-car appliance, the pneumatic rail-sander. The New York Central did not bill itself as "The Water Level Route" without justification, so there were no really steep grades for the electrics to deal with. However, overcoming inertia in starting long trains usually called for judicious applications of sand, with which each T-motor was generously supplied. In fact, one of the distinctive visual characteristics of the T-type was the pair of sand tanks standing on each end truck, within the enclosure of hand-railings forming the "porch" onto which the cab doors opened.



Cab lengths and other details on the three basic sub-classes of T-motors are compared: (top) T1b no. 1156 illustrates the short cab of the early types; (middle) T2b no. 1165 has a medium length cab; and (bottom) T3a no. 1176, with the long cab of the late T-types. Notice the different placement of sand tanks on the earlier and later types.

The first T-motor, no. 3247, was built in 1913 by Alco-GE, the same combination which had built the S-types. Nine more came later that year, making ten of the T-1 type. Each loco was 55 feet, 2 inches long over the coupler faces, had an overall wheelbase of 45 feet, 7 inches, a cab 33 feet long, and a maximum height of 14 feet, 5 inches. Multiple-unit controls were not fitted, but the small pantographs for overhead current collection (in addition to the usual third-rail shoes) were a prominent feature. Each inner truck had a wheelbase of 5 feet, while the wheelbase of each outer truck measured 6½ feet. An oil-fired steam-heat boiler was provided within the cab, an appliance with which the S-3's had been fitted, and which came to be a cold-weather necessity with long trains of steel cars.

The reconstruction of Grand Central into its present form was just about complete as the first 10 T-motors arrived on the scene. (The lower level of the terminal would not be opened for some years, but it was intended for use by multiple-unit trains rather than by locomotives.) The great capacity of the new station allowed more and longer trains as passenger traffic continued to increase in those years, so the new electric engines were put right to work. These early T-types with their short cabs must have seemed either ludicrous or amazing to trackside observers when hauling enormous trains of perhaps 16 or more cars unassisted. The casual public, used to equating size with power, as was generally the case with steam locomotives, must have wondered at how such a compact box on wheels

could develop such awesome pulling-power.

History repeated itself as the success of the earlier S-types was matched, then bettered by the newer T-types. Six more were added in 1914. These T-2 engines were a bit longer than their predecessors of the previous year, and had noticeably longer cabs, 37½ feet, to accommodate more banks of resistors, which were mounted on the roof on all of the T-types. There were slight modifications to the motors, though the same basic design was continued. Wheelbases of the trucks remained the same as on the T-1, but overall wheelbase was increased to 46 feet, 5 inches.

Ten more T-2 units were added in 1917. As the S-types were more and more assigned to yard duties, the augmented fleet of T-types handled proportionately more of the road service. In 1926, another 10 locos joined the roster. These T-3 types had the same running-gear measurements as the T-2's, but had still longer cabs (39½ feet, this time) to permit the installation of a larger boiler and larger fuel and water tanks. The 36 T-motors became the backbone of the electric locomotive fleet for nearly five decades, though supplemented by the S-types and by later electrics as traffic warranted.

Built in 1913 but shown here in 1956 at North White Plains, T1b No. 252 displays the gray paint with white striping applied to these engines in emulation of the railway's passenger Diesel livery. Later, these engines got a simplified scheme with a single white stripe around the belt line portion of the locomotive.

The T-1's were renumbered from the 3200-series to the 1100-series very soon after delivery, so they became no. 1147-1156. These locos, as well as the later T-types, 1157-1182, were all renumbered to the 247-282 series in 1936, simply by substituting the digit 2 for the digits 11 in the road numbers. Plain black paint was standard for these units until the 1950's, when a livery of gray with white striping began to appear, in imitation of the paint scheme used on the New York Central's Diesel-electric locomotives, which were replacing steam on the Water Level Route. A later repainting altered the livery to gray with a single, wide, white band at the belt line.

T1b No. 248 is seen southbound with a 6-car train of suburban coaches on the snow-covered Harlem Division south of White Plains, N.Y., on February 17th, 1940.

Motive-power changes on the system, the decline in passenger travel by train as public preference shifted toward the automobile and the aeroplane, and the delivery of new multiple-unit cars in 1950 and in the 1960's rendered many of the electric locomotives surplus. The trend was more to m.-u. cars for suburban runs, and there were fewer long-distance trains to be handled. Though some of the S-2's continued in yard service (and an occasional road assignment) while Mott Haven Yard was still in use, most of the T-types were retired in the later 1950's and the early 1960's. A few survived into the Penn Central era. One even was sent to Sunnyside Yard, the Pennsylvania Railroad's great New York facility, for use with a work-train which is used to maintain the 11,000-volt overhead wires in the East River and the Hudson River tunnels, which are also equipped with 650-volt third rails.

But the day of the straight electric locomotive in Grand Central road service is just about over. Shunting in the terminal is still handled by S-2 no. 4715, which makes occasional road trips when needed, and three former Niagara Junction electric switchers have just been added for terminal work, but most non-m.-u. trains are now hauled by former New Haven Railroad FL-9's, which are streamlined Diesel-electric units equipped with third-rail shoes for running with the prime-movers shut off in third-rail

The highest-numbered locomotive of this series was T3a No. 282, shown above on the Hudson Division north of University Heights station in The Bronx on June 9th, 1938. It is hauling the northbound Twentieth Century Limited *of 13 heavyweight cars.*

As the same train passes, we turn and see the Century's *observation car, complete with awning and tailboard sign. Later that year, this rolling-stock would be replaced by the* Century's *first streamlined equipment.*

territory. The distinctive box-cab T-types, once so familiar in reality, in pictures, and in toy-train versions (as were the S-types), are gone but not forgotten. They remain in memory and in photographs as the mainstays of through train service in the Water Level Route's electric zone during the greatest years of passenger-train travel. Indeed, they served well.

Class T-1a: Weight, 252,200 lbs. Height, 14′5″. Length, 55′2″. Calculated horsepower, 2,584. Wheelbase, 45′7″. Cab length, 33′. Built in 1913. Road numbers: orig. 3247; renumbered in 1913 to 1147; in 1936 to 247. Retired in 1956.

Class T-1b: Same as T-1a except road numbers: orig. 3248-3256; renumbered in 1913 to 1148-1156; in 1936 to 248-256. Built in 1913. Retired in 1955-1959.

Class T-2a: Weight, 279,100 lbs. Height, 14′5″. Length, 56′10″. Calculated horsepower, 2,475. Wheelbase, 46′5″. Cab length, 37′6″. Built in 1914. Road numbers: orig. 1157-1162; renumbered in 1936 to 257-262. Retired in 1955-1962.

Class T-2b: Weight, 280,500 lbs. Otherwise similar to T-2a. Built in 1917. Road numbers: orig. 1163-1172; renumbered in 1936 to 263-272. Retired in 1955 through 1960's.

Class T-3a: Weight, 292,600 lbs. Height, 14′5″. Length, 56′10″. Calculated horsepower, 2,488. Wheelbase, 46′5″. Cab length, 39′6¼″. Built in 1926. Road numbers: orig. 1173-1182; renumbered in 1936 to 273-282; those which lasted into Penn Central ownership were renumbered in the 4773-4782 series. Retired in 1960's with a few exceptions.

(Data from New York Central equipment diagrams; additional credit to Edward May, William Edson, and Charles M. Smith.)

Steam trails from the train-heating boiler of T1b No. 248 as it hauls a 4-car train southbound near Scarsdale, N.Y., on the Harlem Division, January 28th, 1940.

A Note About New York Central Electric Locomotive Classifications.

In the article describing the first New York Central electric locomotives in the previous issue of this magazine, the locomotives were referred to throughout as S-types. This was done to avoid any confusion with other engines. It may be mentioned, however, that the first unit, no. 6000, was originally Class L, since that letter then represented the 2-8-2 wheel arrangement on the Central. When this loco and the others of its type were placed in service in 1906, the classification was changed to T, apparently to avoid confusion with the railway's 2-8-2 steam locomotives of Class L, which would have been used on non-electric track in the New York area at that time, and which may have been used on freight trains on electrified tracks in the days before the Central had electric freight locos.

To have referred to the earliest electrics as T-types in that article might have caused some confusion, since the letter T has represented the engines described in *this* article since 1913. Hence, the earlier electrics were referred to as S-1, S-2, and S-3 types, which classifications were assigned to them after the 2-wheel pony trucks were replaced by 4-wheel trucks. The letter S thereafter represented the 4-8-4 wheel arrangement on the New York Central. Much later, when steam locomotives of the 4-8-4 type were acquired (the famous "Niagaras"), they were also Class S, even though some of the electric S-types were still in service. The latter had, by that time, been renumbered into the 100-series, while the steamers bore road numbers in the 6000-series, so confusion was not then likely to arise.

—Roger Arcara

Photos of the Rails

Southern Pacific SD40T-2 No. 8514 and four other units led a long westbound freight downgrade, approaching the passing track at Bealville, Calif., on November 1, 1980. Those boxcars you see in the background are part of the same train and are about to enter Tunnel 5. After emerging from that tunnel the cars will curve right and go through another tunnel before appearing where 8514 now is. A sixth SP engine, No. 9320, brought up the rear of the train.

William T. Morgan

Amtrak's newest train, The Lake Cities, *running between Toledo, Ohio, and Detroit, casts a reflection of itself in a pool of water as it heads northbound through Ecorse, Mich., on the day of its inaugural run, August 3, 1980.*

Gary S. Daniels

Southern Railway's famous Mikado, No. 4501, shakes up the springtime air on an overcast day in April, 1980, as she proceeds south on a run from Nashville to Columbia, Tenn.

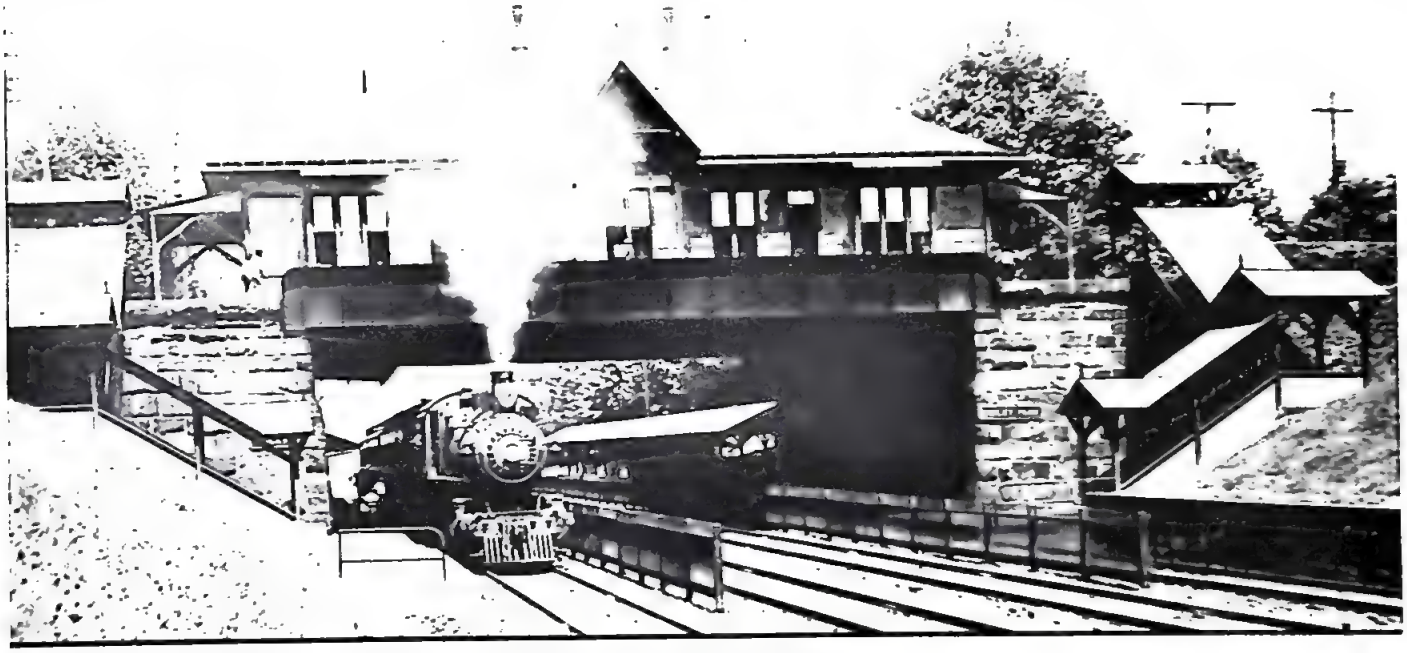
Jerry Mart

Pennsy Steam Power Parade

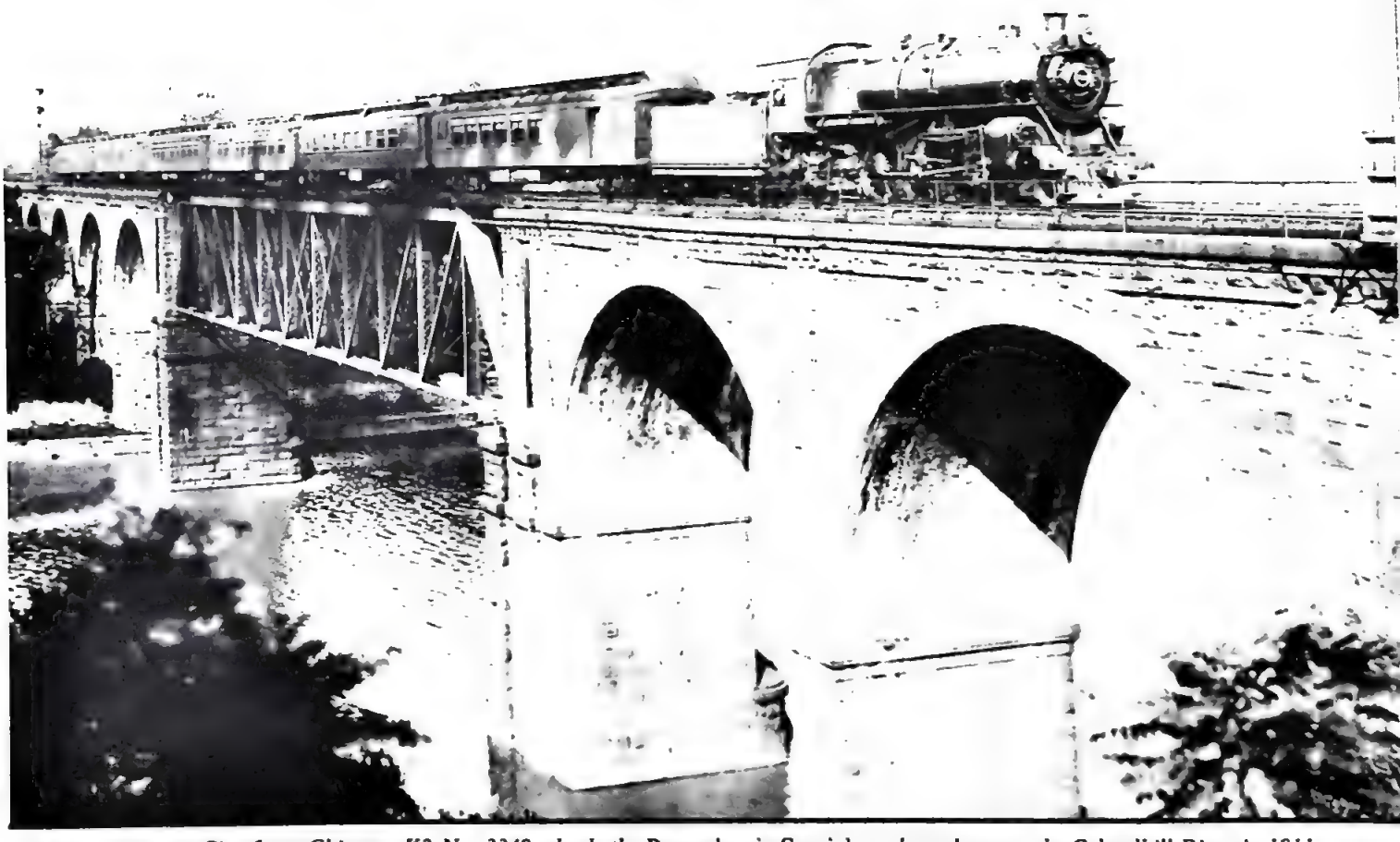
Photos from the collection of Harry P. Albrecht

With the arching trainshed of Jersey City Terminal in the background, engine No. 6082, an E2d built at the Pennsy's Juniata Shops in 1907, departs with a passenger local around 1910.

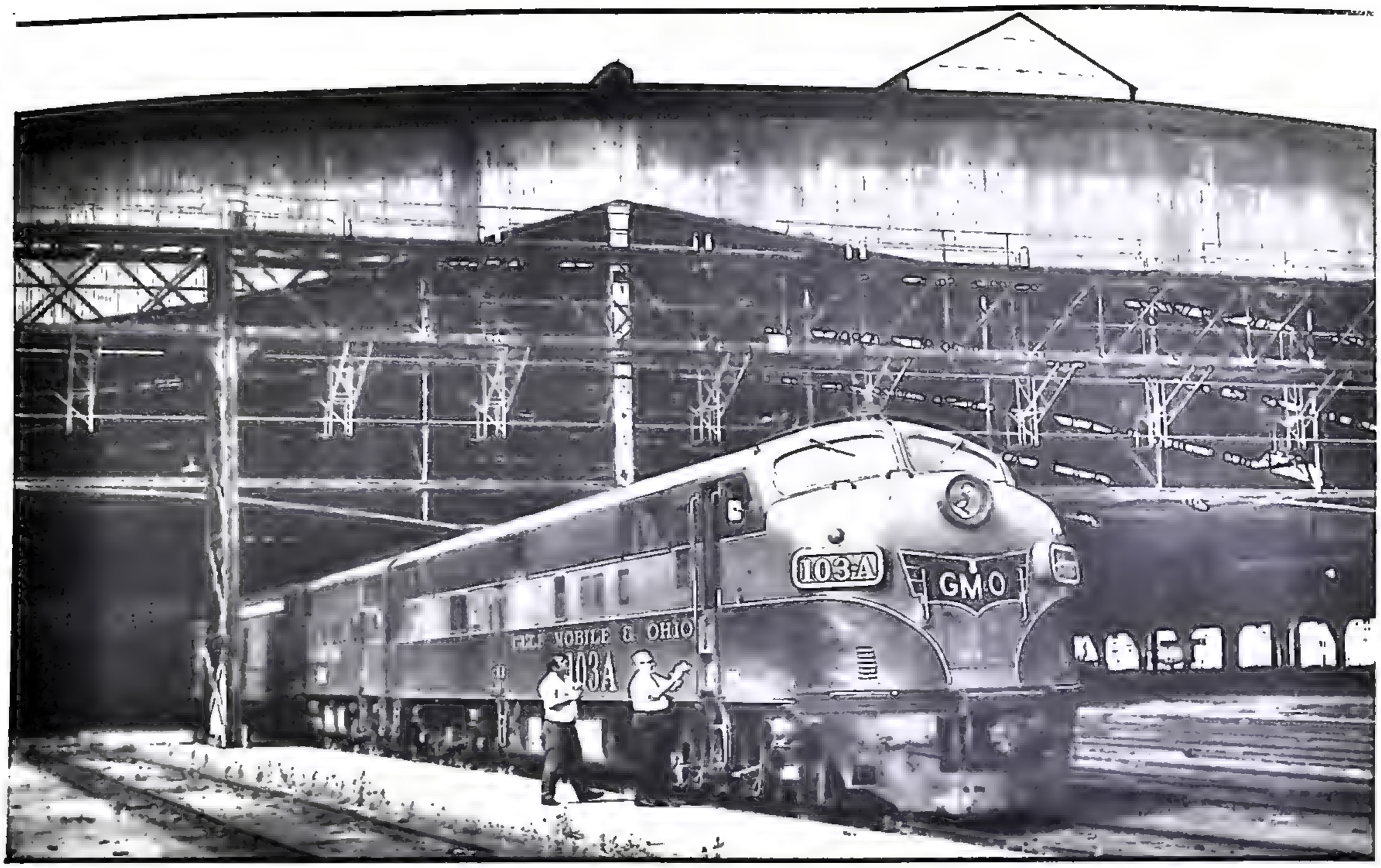
No. 1053 distinguished itself by pulling a special train of delegates to the Pan American Exposition held in Buffalo in 1901, about the time this photograph was taken. Note the lettering on the tender, a highly unusual spelling for the Pennsylvania Railroad. The locomotive, class D8a, was built in Altoona in 1883; location of photo is unknown.



Not many Pennsy stations were built over the tracks, in this case the main line to Washington at Ridley Park, Pa. Station was removed after World War II.



Bound for Jersey City from Chicago, K2 No. 3349 wheels the Pennsylvania Special *eastbound across the Schuylkill River in 1911.*



Prior to the ICG merger, Gulf, Mobile & Ohio's Chicago-bound Limited *prepares to leave the ghostly Union Terminal trainshed in St. Louis on June 10, 1970. E-7A #103-A and F-3 #883-A have the train in hand.* Photograph by Burrell P. Spieth

On Track in the Diesel Age

with Jim Edmonston

The big news for diesel fans east of the Mississippi is the recent ICC approval of the Chessie-SCL merger, which in effect combines B&O, C&O, Western Maryland, Seaboard Coast Line, Louisville & Nashville, Georgia, Clinchfield and Atlanta & West Point into a 27,000-mile system serving 22 states, Ontario, Canada, and the District of Columbia. The new system, known simply as CSX, is the second largest U.S. railroad. Here in Cincinnati, the traffic patterns will be greatly affected since all roads entering town interchange with one another on north-south traffic. Imagine: Chessie (B&O-C&O) now interchanges with L&N and Southern, and L&N works with both Conrail and DT&I. Will all that L&N traffic now go CSX?

The Detroit, Toledo & Ironton competes directly with B&O's Toledo division; if it lost the L&N traffic it would be hurting. Will B&O still use the Southern on the run-through between Detroit and Atlanta? Conrail is one of the chief interchangers with L&N; both CR and L&N locos are used together on transfers through town. It would seem that this will stop. Will Conrail shift its freight to Southern? And where does this leave the Norfolk & Western which also uses L&N and Southern? Looks like busy times ahead. I'll keep you posted.

Speaking of the L&N, a highlight for me last summer occurred on August 2, when my son Keith and I accepted an invitation from Louisville railfan Mark Loyd and the L&N Railroad to attend the gala party and open house at South Louisville shops. The occasion was the 75th anniversary of this vital facility.

We got started early after staying the night at Mark's house. First item on the itinerary was the new location of the Kentucky Railway Museum, which is completing a move from the banks of the Ohio River to a spot north of St. Matthews, Ky., along the L&N's Cincinnati-Louisville mainline. The museum's fine collection has been steadily growing since the late 'fifties, with steam from L&N (4-6-2 no. 152), C&O (2-8-4 no. 2716), and Republic Steel (0-8-0 no. 285), plus diesels from the L&N, Monon, the U.S. Army, and a couple of private industries.

Rolling stock includes a large quantity of passenger equipment and an ever-increasing batch of freight cars. This is not a static display either. L&N no. 152 has been completely torn down and is well on the way to being operable. C&O no. 2716 is at Southern's steam shop in Birmingham and should be pulling specials this year. Monon's EMD BL-2 no. 32 is in operating condition and has been used on fantrips.

Both no. 32 and L&N's first E-6, no. 770, were on exhibit at South Louisville shops *in their original paint schemes!* When we arrived, Republic's no. 285 was spotted facing the morning sun ahead of a

str[illegible] of freight cars, just like a huge model railroad display. The Army Alco S-2, which runs and is used for spotting equipment, was buried behind some newly-arrived Clinchfield coaches. A GE 45-tonner also is used in spotting service.

After looking around we headed for South Louisville. The crowd at the north gate was beginning to build, and as we parked L&N started letting people in. All visitors received a map of the shops, an L&N plastic trash bag for their cars, a ticket for a free coke and hot dog, and paper L&N caps, balloons, and tin whistles for the kids. It was obvious this was a major event.

Displayed outside in perfect sunlight were some real surprises. One was L&N's first E-6A, no. 770, on loan from the Kentucky Railway Museum. She had been repainted back to her original blue and cream color scheme with script lettering. No. 770 trailed a string of vintage passenger equipment, open to the public, from the Pullman *Mt. Broderick* to a wooden coach from the 1800's. A little further along was the new GE C-30-7 no. 7067, with kids climbing up into the cab, and a new EMD SD-40 behind it.

Over on the next track was Clinchfield's 4-6-0 no. 1, famous for recent fantrips. She is quite a bit older than the shops, built in 1882. A steam line was run from her whistle to the shops and the kids all had a ball blowing it, although the pressure wasn't quite enough to give that high-pitched shriek I remember hearing a few years ago in Erwin, Tennessee.

Two more locos were on display: L&N U-23B no. 2803 and Monon BL-2 no. 32. The 2803 is painted in a commemorative scheme for the 75th anniversary, and a sign proclaimed that she had been completely rebuilt at South Lou after a disastrous wreck in Tennessee. As mentioned, Monon's no. 32 was in her original scheme with new running gear paint, on loan from the museum.

Inside the huge shops, visitors got a guided tour of the laboratory where computers watch for changes in oil viscosity, breakdown of metal parts, and where fuel tests are run. The heavy repair bay had locomotives in all stages of overhaul, and visitors were climbing all over them. Though the shops were not working that day, the entire supervisory crew was detailed as "Safety Men," with a "look but don't touch" policy. Questions were courteously answered and most requests were granted. It was unnerving, by the way, to see older ladies in their Sunday dresses climbing up walkways, through cabs, and past rows of oily EMD 567 blocks on dollies.

We ate a quick lunch in the freight-car repair bay where model displays were set up and where one fellow had an operating HO layout going. The train, with a couple of L&N cars, was pulled by a rather inappropriate loco—a Penn Central GG-1.

Photograph by Curt Tillotson, Jr.

Norfolk Southern's Extra 1611 West arrived at Raleigh, N.C., on July 5, 1970, behind Baldwin AS-416's #1611 and 1614. Only 21 of these road-switchers were built. They carried 6-wheel trucks but only 4 traction motors, with the center axle non-powered.

As we left, we watched people get a ride on the transfer table, saw a fully restored and repainted 1906 NC&St. L boxcar, and got a shot of L&N no. 2364, an EMD-repowered Alco S-4. She wasn't on display; just taking the day off. I suppose we spent two hours at L&N's expense. The crowds outside the gates when we left were proof of a successful day for the railroad. I really think most of Louisville saw the shops that day.

Mark cranked up the car and we headed west into darkest Indiana, intent on tracking down reported diesel dinosaurs still operating in coal mines of the area.

Southwestern Indiana is not known as a railroad-heavy area. The only mainline between Louisville and Evansville is the Southern, and it has only recently gotten much density, with Burlington Northern and MoPac run-through freight joining the otherwise light Louisville-St. Louis traffic.

We weren't likely to see much mainline action, so we took a straight shot to Lynnville, Ind., 150 miles west of Louisville, on I-64. We passed under the Louisville, New Albany & Corydon and close to the Ferdinand R.R., both weekday operations using GE 45-tonners. The only other railroad we saw was a branch of the Southern, probably the Tell City line.

Lynnville is a very tiny burg with one big industry—the Peabody Coal Co. mine. The mine is just south of I-64 on Route 61, and on the map looks just like the dead end of a Conrail branch. Yet here may be found locomotives from all major builders in the "glory days" of the diesel. Peabody Coal, perhaps the largest coal conglomerate on earth, operates mines in Indiana, Illinois, Missouri, Kentucky, and Montana.

Power for these operations has always been secondhand, and the roster is heavy with Alco, Baldwin, and older EMD power, with such goodies as Fairbanks-Morse, Whitcomb, Lima, and Davenport-Besler thrown in. Peabody took an interest in big Baldwins in the mid-70's, buying up AS-16 roadswitchers from B&O and U.S. Pipe and Foundry, and those two mighty DT66-2000 centercabs from the Trona Railway in California, nos. 50-51. Most of Peabody's Baldwins have gone now, although its subsidiary, Rail-To-Water Transfer Co., in the Chicago area uses Baldwins from the Durham & Southern.

The first loco we saw at Lynnville was Baldwin AS-16 no. 343, which started life on the MoPac as ST1 B&M no. 4327, then 936, then U.S. Pipe & Foundry (Birmingham) no. 43. Built in June, 1954, she has been out of service at Lynnville since 1973, having blown three engines since she was acquired in late 1972. I doubt if she'll

ever operate again. The three locos serviceable at Lynnville that day were Alco RS-3 no. 413, EMD SW-1 no. 470, and Yankeetown Dock FM H-12-44 no. 2. I cannot recall when I last saw an FM switcher operate; probably in Baltimore in the 'sixties.

EMD no. 470 is named "Tinker Belle" and is former Erie-Lackawanna. The Yankeetown Dock no. 2 is on loan from that company since Lynnville is very short of power. Two other locos were on hand. Alco RS-3 no. 230, ex-Great Northern, stood derelict with a blown engine and is not likely to be repaired, and the piece de resistance, Squaw Creek Coal no. 721001, a very rare FM H-16-66. She was out of service when we saw her but we were told that a $1900 piston assembly had just arrived and that Peabody would repair the unit. The only other FM H-16-66 I know of is Tennessee Valley Authority no. 24. At last report she was serviceable.

I sincerely hope that Peabody can repair the Squaw Creek unit or, if not, preserve her. At this time she is in sorry condition, but life and a paint job would be great. Lynnville Mine wasn't working the Saturday we were there, but strings of loaded hoppers sat in the yard, mostly Conrail's. Others were Ipalco unit cars, PCCX mine-service-only cars, and one old side dump still lettered Midland Electric Coal, which Peabody took over in 1963.

About 10 miles south of Lynnville is Boonville, site of the Squaw Creek Coal mine and Peabody's Wright Mine. At last report, Wright Mine was worked by two ex-Santa Fe Alco "Alligators," nos. 9842 and 9843. Both Mark and I saw these rebuilds on delivery, so we bypassed the Boonville operations in order to get the Yankeetown Dock Co. in action.

Yankeetown, Ind., lies on the banks of the Ohio River and possesses a huge Alcoa plant and a coal dumper operation. This coal dumper and barge loading facility is the Yankeetown Dock Co. YDC's roster consists of three EMD SD-38's, nos. 20, 21 and 22 and three FM H-12-44's, nos. 1, 2 and 3. Nowhere else on earth will you find a roster like that.

We had already seen FM no. 2 at Lynnville Mine, so we looked for the others here. No problem. We had no sooner found the property when an air horn blew us off the railroad and along came SD-38 no. 20, dragging a string of empties off the dumper. YDC uses huge 100-ton bathtub gons in coal service, painted white with red lettering, as are the locos. No cabooses are used.

We checked in at the office and were issued hard hats and given a guided tour of the facilities. FM H-12-44 no. 3 was working the car dumper, looking good. Inside the diesel shop was sister engine no. 1 and sitting outside in the sun was SD-38 no. 21. We took pictures quickly, trying not to disrupt our guide's day too badly. I asked where no. 22 was, the most recent SD-38, and the dispatcher got on the wire and relayed my question to the engineer. "About five minutes out and waiting for no. 20 to clear," was the reply.

Jim Edmonston photo

Yankeetown Dock's #2, a rare FM H-12-44, on lease to Peabody Coal, at Lynnville, Ind.

Hurrying back to the crossing where we had seen no. 20, we set up for an action shot and, sure enough, a headlight showed to the north. It was no. 20 returning after setting out his empties. Right on his heels came another light: this was no. 22 with about thirty loads heading for the car dumper. I'll tell you, after driving 175 miles, you really appreciate cooperation like that!

The day was getting along too quickly and we still had a little driving to do to get to our next destination. Due north and a jog west, we headed for Oakland City, Ind., and the Algers, Winslow & Western Railway. This outfit, jointly owned by the Southern and the Old Ben Coal Co., exists for the sole purpose of loading hoppers from on-line mines. Oakland City sits on the junction of the Southern's Louisville-St. Louis main and Conrail's single-track branch to Evansville. AW&W loads cars for both roads, but the only hoppers I saw in the yard were Conrail's. We inquired at the office where a dispatcher was running things and he said that a Southern unit train was loading at a mine up around Winslow, running with SR power. This was the Georgia Power train, direct from Atlanta.

AW&W was all-Alco and six units strong until 1978, when SD-9's off the Central of Georgia (via Southern) arrived. The roster was two S-4's, three RS-1's and a slug. When we arrived on Aug. 2, 1980, S-4 no. 1 and RS-1 no. 4 were the only Alco's left, supplemented by the road's EMD power in the form of SD-9's nos. 203-205. No. 205 is still in Southern black, but the dispatcher said that SR was going to paint her in AW&W's attractive red, white and black paint scheme. Also, he reported that AW&W is interested in buying a fourth SD-9. That would more than likely kill off RS-1 no. 4. S-4 no. 1 was sitting behind the diesel shop but in good condition; still used but probably not every day.

We were sorely tempted to stay and wait for the arrival of an AMAX Coal unit train that was supposedly coming in from the West, with AMAX power, but it was getting late and the day was clouding up. Heading back to Louisville, we saw a Southern freight ready to leave the East End at Huntingburg, trailing a MoPac caboose but with three Southern SD's on the point; we also just missed seeing the power on a ballast extra that was entering the tunnel west of New Albany, in the area known as "The Knobs." Keith and I drove home to Cincinnati that night in a monstrous thunderstorm, the fitting ending to another fine railfan trip.

JOE JACK, who works for Conrail at Conway Yard, near Pittsburgh, had a busy summer trying to keep track of all the used locomotives moving through this gateway. Some are rebuilt, some are scrap, while others are moving to loco dealers. All types of both new and used engines can be seen at Conway if you keep a close watch. A few sightings: two rebuilt GP-9's of the Precision National Lease Fleet went east to Tidewater Grain Co. of Philadelphia. These were nos. 3403 and 3445, both ex-Southern Pacific, now in green and yellow paint. Who is Tidewater Grain and what type of operation do they have in Philly?

One of the oldest units in existence, Cheswick & Harmar GE off-center cab no. 7, was spotted moving from Kovalchek Scrap of Indiana, Pa., to a location in Arkansas; other details unknown. This loco was built in Feb. 1942 as U.S. Army no. 7503. It really should be preserved. I visited the Cheswick & Harmar many times while in the Pittsburgh area, and no. 7 was always "on standby," since the

C&H preferred no. 5, an even more ancient (Jan. 1935) Westinghouse center-cab. Kovatchek bought both locos when C&H folded in the early 70's; I assume it still owns no. 5.

Standard Slag no. 20040 moved through Conway enroute to Columbus, Ohio, last June. This is a GE "Wartime" center-cab 70-tonner, originally built for the New York Central's Despatch Shops. A yellow Whitcomb 80-ton center-cab, Standard Steel no. 6715, from Burnham, Pa., was transferred through Conway to the Transco Co. of Bucyrus, Ohio, also in June. And U.S. Steel moved its fleet of Baldwins from the Mesabi Range (Old Oliver Iron Mining location) to the Fairless Works near Philadelphia. Included in the group were the only Baldwin Cow-Calves ever built, model S-8.

Conway Yard sees new units, too, mostly GE products going West. Cotton Belt and SP units were common last summer. The disposition of many of L&N's old Alcos to Naporano Iron & Metals in New Jersey meant a flood of white-lined units going East. And refurbished units moved often from Naporano to customers west of Conway.

FIRST railroad to get the new EMD GP-50's was the Chicago & North Western. This model carries a 3500-hp rating, with the turbocharged "F" power plant, new SS wheel-creep system and noise abatement hardware. CNW no. 5050 (nobody should have trouble remembering that) was the first unit.

THE ranks of our beloved F units are getting smaller. With the untimely demise of the Rock Island, F-7's nos. 675-677 went to Chrome Crankshaft for scrapping. Milwaukee Road ended 71 years of operation in the Pacific Northwest, cutting back the western end of the line to Miles City in eastern Montana as I write this. That move meant storage for a large number of engines and the F units were hit hard. Some went to PNC for scrap, while others were stored at Savannah, Ill., and South Minneapolis.

Burlington Northern, another sizeable F-unit operator, has a number of them in storage and is rumored to be thinking of trading in many F's this year. Elsewhere, there are small groups of active F's on Bessemer & Lake Erie (old Western Allegheny R.R. and Conneaut Dock locations), Clinchfield (mainly out of Erwin, Tenn.), Katy (road service), Soo Line and Chicago & North Western, although C&NW was reportedly storing all its F's at Oelwein as of last summer. Canada fares better — there are F's on VIA, CN, CP, and Ontario Northland.

Seen at Conrail's Conway Yard: Standard Steel's Whitcomb 80-tonner, #6715 (top photo); and Standard Slag's GE 70-ton center-cab #20040 (above). Photos by Joe Jack

THE Escanaba & Lake Superior RR at Channing, Mich., is a fine spot to view older units these days. E&LS took over the Milwaukee's Green Bay to Ontanogon line (208 miles) last March and leased a number of units to handle traffic, including Milwaukee F-7's, a U-30C, six Lake Superior & Ishpeming Alco RSD-12's, and LS&I U-23C no. 2300. Also, four Soo Line F's, an RS-36 from Xtra, Inc. (ex-N&W), two SD-40-2's from Conrail, and Baldwin Sharknose RF-16 no. 1216, now owned by the Castolite Corp. In addition, E&LS has purchased outright Michigan Northern's Baldwin RS-12's nos. 212, 213 and 215. Get up to Michigan if you can!

WITH business down, most every major road has long storage lines of power, with the most inefficient locos on a first-in, last-out basis. This will mean that many of our older units will be going for trade-ins and/or rebuilding. Loco rebuilders are becoming common. Illinois Central Gulf's Paducah shops, Precision National, and Morrison-Knudsen are the three big names, but also active, though lesser known, are National Loco, Naporano Iron & Metals, Chrome Crankshaft, Birmingham Rail & Loco and Southern Rails.

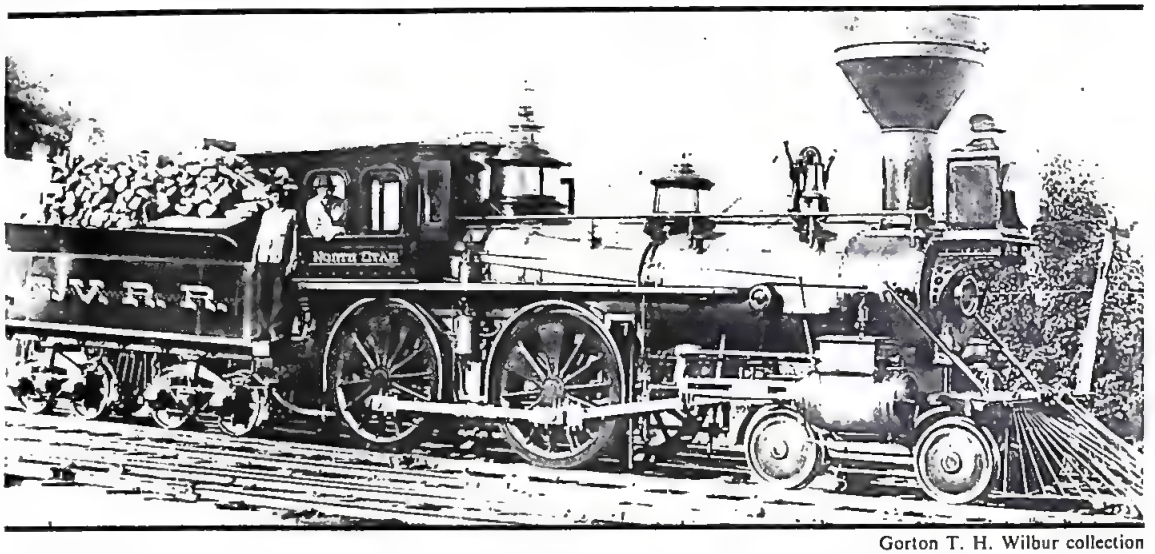
As you may know, the great bulk of the Rock Island fleet was leased, and the lessors have now recovered their engines, with some finding work on the Union Pacific, Missouri Pacific, Maine Central and Grand Trunk Western. A big block of units actually owned by Greyhound Corp. is stored on the C&NW at Oelwein, Iowa, awaiting new jobs. Precision National took back their rebuilt GP-7's and 9's and now has many more to farm out. The 214 units that the Rock itself owned went to Chrome Crankshaft, which will lease out those units fit for service, and scrap or rebuild the rest.

Railroad-owned shops also rebuild locos. Conrail's DeWitt, B&O's Cumberland, C&NW's Oelwein, even the Rock's Silvis shops are very active. Santa Fe's Cleburne, Texas, and San Bernardino shops have long been well-known for rebuilds. Now we have a new one: SCL's Uceta shops in Tampa, Florida. SCL is turning out "GP-16" rebuilds and has made 35 units from old GP-9's.

All this will certainly take its toll on the new power market, especially the switcher phase. Yet these rebuilds and home-made jobs add infinite variety to the diesel scene. We have a lot to look forward to in the immediate future, with all the merger activity, new shortlines, used power and various other changes taking place. I'll try to keep you up on it.

Send me some news at 821 Clearfield Lane, Cincinnati, Ohio 45240.

Test Your Railroad Knowledge



Gorton T. H. Wilbur collection

A popular locomotive wheel arrangement on American railroads in the last century was the 4-4-0 type, such as the Central Vermont North Star, *shown at the left.*

Wheel arrangements Prior to about 1880 the most commonly used locomotives on American railroads were what we would today refer to as 4-4-0's and 2-6-0's. In the latter part of the Nineteenth Century, however, numerous other types started to appear. The reason for this was the demand for heavier and more powerful locomotives in the East to haul increasing amounts of coal then being extracted from the Allegheny Mountains and destined for the furnaces of Pittsburgh; and in the West a parallel need for large engines to effectively negotiate the steep gradients of the Rockies and the Sierra Nevada.

By the turn of the century, the profusion of various engine types was causing a problem, particularly as individual locomotive builders each had its own classification system. An easy method to tell engines apart was needed and the one proposed by Frederic M. Whyte, general mechanical engineer for the Rutland Railroad, soon came into general use, although it was never officially adopted.

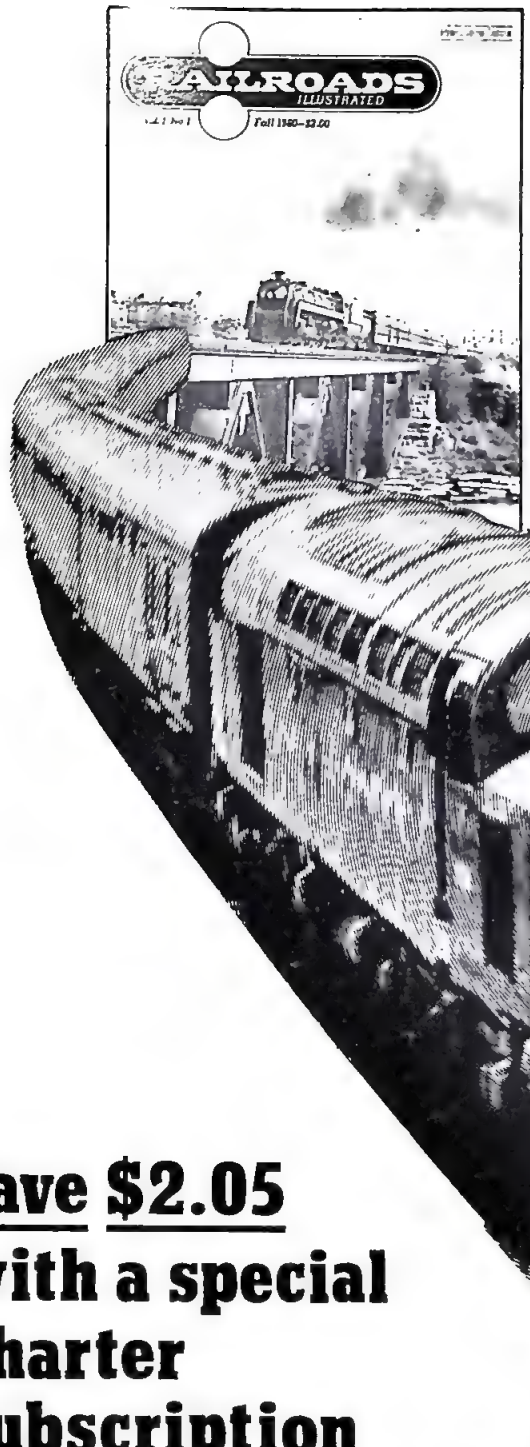
Now referred as Whyte's Classification System, the method simply counts the number of pony truck wheels, driving wheels, and trailing truck wheels, each group being separated with a hyphen. This system was commonly used in the U.S. and Britain, but not in France or West Germany.

Name the Locomotive Type

In addition to the numerical designation described above, many steam locomotive types acquired names that were occasionally used to identify them. Often, these names described the general location where the type was first used, or were derived from the railroad that first ordered them.

Below is a list of 15 locomotive types and, on the right, the names with which they are associated. Using the blank spaces in the middle, see if you can match up the type with its name. To start you off, a 2-6-0 is a Mogul. (One further hint: a 2-6-2 is *not* a Ten-wheeler. Answers are on page 35.)

2-6-0	4 0 0 0	A. 9	1. American
2-6-2	4 0 0 0 0	B. ___	2. Atlantic
2-8-0	4 0 0 0 0	C. ___	3. Berkshire
2-8-2	4 0 0 0 0 0	D. ___	4. Consolidation
2-8-4	4 0 0 0 0 0 0	E. ___	5. Decapod
2-10-0	4 0 0 0 0 0	F. ___	6. Baltic, Hudson
2-10-2	4 0 0 0 0 0 0	G. ___	7. Mastodon
4-4-0	4 0 0 0	H. ___	8. Mikado
4-4-2	4 0 0 0 0	I. ___	9. Mogul
4-6-0	4 0 0 0 0	J. ___	10. Mountain, Mohawk
4-6-2	4 0 0 0 0	K. ___	11. Northern, Niagara
4-6-4	4 0 0 0 0 0	L. ___	12. Pacific
4-8-2	4 0 0 0 0 0	M. ___	13. Prairie
4-8-4	4 0 0 0 0 0 0	N. ___	14. Santa Fe
4-10-0	4 0 0 0 0 0	O. ___	15. Ten-wheeler



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Famous passenger trains were often depicted on the backs of playing cards during the steam era. Some collectors try to acquire as many such singles as they can.

Collector's Corner

by Stanley L. Baker

Railroad playing cards came on the scene during the 1890's, shortly after souvenir packs made their appearance in America. It is believed that the first U.S. souvenir playing cards were introduced at the World's Columbian Exposition held in Chicago in 1893, when decks of cards were issued picturing the various buildings and places of interest at the Fair.

It was not long before the railroads had souvenir packs made especially for them, with the 52 cards showing picturesque scenes along their routes. Various playing card companies manufactured souvenir packs for the railroads, such as the Interstate Co., Van Noy Publishing Co., the United States Playing Card Co., and Charles Goodall & Sons, Ltd., to name but a few.

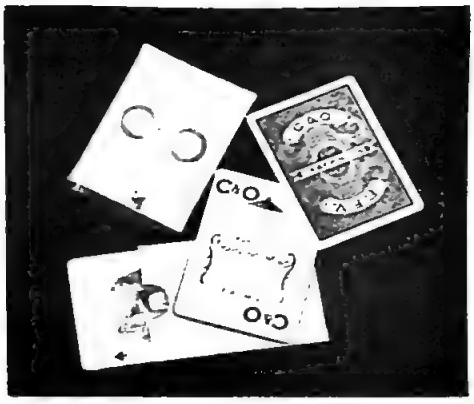
These early vintage souvenir decks came in a two-piece cardboard slipcase, with a playing card glued to one side to show either the back design or one of the views depicted on the suits. Imprinted on the other side of the case was the railroad's logo or name. Cards in those days were made of good grade linen, gilt-edged, and the photos, designs, and colors were usually of fine quality. Views on the cards typically showed trains, depots, hotels, bridges, and historical landmarks (many of these identical views, incidentally, were also reproduced on old postcards). Today, these scenic decks are much sought after for their fine appearance and photographic significance.

As card playing became more popular all across the country, the railroads realized their potential for advertising purposes. The back designs soon carried colorful ads and catchy slogans, while the Joker and Ace of Spades started to be used for advertising copy. It is believed that the Rock Island and the Burlington Railroads were the pioneers in using these cards in this way. In 1903, the Chicago & Alton R.R. first portrayed its famous Cowboy Girl and slogan, "The Only Way," on their cards, with the road's logo featured on the back. Both the Ace of Spades and Joker, as well as the case, contained advertising. Unfortunately, few of these early railroad advertising packs have survived intact. A deck in superb condition in its original case would be a lucky find, indeed.

Card playing on the trains soon became a popular pastime, and packs were sold by train "butchers," as they were called, who boarded the train at various stations to sell passengers sandwiches, candy, magazines, and newspapers. Women played bridge in the lounge car, and men had their games of pinochle or poker going on in the smoking car. Signs were posted to inform travelers about the dangers of card sharks and con men, warning them not to participate in any games with strangers.

During those halcyon years when travel by train was virtually the only form of long-distance transportation, the railroads continued to profusely advertise on both playing cards and cases, featuring their exclusive slogans and fast Limiteds. Decks from these years, picturing famous name-trains on the backs, are highly desirable. Some railroadiana collectors specialize by collecting only cards picturing name-trains (or the Joker or Ace of Spades with the road's logo and slogan), trying to see how many different singles they can get.

As passenger revenue started to decline, the production of playing



A two-piece box type slipcase was used to protect playing cards around 1900.

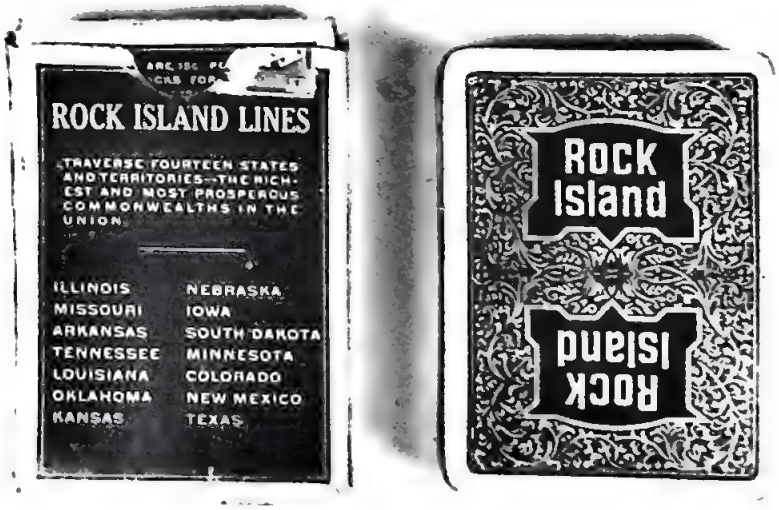
Packs from the diesel age came with or without cases. Note Santa Fe double deck packed in a clear plastic box.

cards tapered off. Some railroads discontinued their passenger trains and stopped issuing them entirely. Other roads still in the passenger business continued to distribute playing cards, but omitted the advertising and printed just the railroad's logo on the back and case. Changes in the case itself also appeared. Most decks now came in a modified single or two-piece cardboard box and, somewhat later, in a plastic box. Later still, packs were simply wrapped in cellophane.

Back in the golden age of the passenger train, railroads frequently advertised playing cards for sale in their timetables. For instance, the 1915 Soo Line timetable informed patrons that their cards were sold at all the line's stations and trains for 15¢ a pack, 20¢ if you wrote the Home Office for a deck. The 1933 Chicago & North Western tt. suggested that you get their cards from the nearest Ticket Agent at a price of 35¢. In 1951, the Great Northern's timetable advertised a single deck from the Blackfeet Indian series at 65¢. Today, that 1915 Soo Line deck is worth about $35.00; the 1933 C&NW, $15.00, and the Great Northern pack, $10.00— a far cry from the prices they originally sold for, not to mention that a complete pack in its original case from a long gone rare road usually goes on the auction block fetching much more.

Despite these sometimes daunting prices, however, many more recent packs still sell at a price that won't strain the average collector's pocketbook. Assembling a collection of railroad playing cards from the early packs to the later ones, complete in their original cases, can offer a real challenge for anyone willing to give it a try.

Chicago & Alton advertised on Joker and Ace of Spades in this deck issued in 1903.



The most popular style case was the one-piece box with a fold down flap.

"Before the words were out of his mouth he started up the track at topmost speed . . . The headlight loomed before him like a mountain of flame."

Second Seventy-Seven

FICTION

by Frank H. Spearman

It is a bad grade yet. But before the new work was done on the River Division, Beverly Hill was a terror to trainmen. On rainy Sundays old switchmen in the Zanesville yards would tell in their shanties of the night the Blackwood Bridge went out and Cameron's stock train got away on the hill, with the *Denver Flyer* caught at the foot like a rat in a trap.

Ben Buckley was only a big boy then, braking on freights; I was dispatching under Alex Campbell on the West End. Ben was a tall, loose-jointed fellow, gentle as a kitten. His legs were as long as pinch-bars, yet none too long, running for the Beverly switch that night. His closest chum in those days was Andy Cameron, youngest engineer on the line. The first time I ever saw them together, Andy, short and chubby as a duck, was dancing around, half-dressed, on the roof of the bath-house, trying to get away from Ben, who had the fire-hose below, playing on him with a two-inch stream of ice-water. They were up to pranks all the time.

June was usually a rush month with us. From the coast we caught the new crop of Japan teas and the importations of China silks. California still sent her fruits, and Colorado was beginning cattle shipments. From Wyoming came sheep, and from Oregon steers; and all these not merely in carloads, but in solid trains.

At times we were swamped. The overland traffic alone was enough to keep us busy all summer; on top of it came a great movement of grain from Nebraska, and to crown our troubles a rate war sprang up. Every man, woman, and child east of the Mississippi appeared to have but one object in life—to get to California, and to go over our road. The passenger traffic burdened our resources to the last degree.

I was putting on new men every day then. We start them braking on freights; usually a man works for years at that before he gets a train as a conductor. But when a dispatcher is short

Illustration by Herb Mott

on crews he must have them, and can only press the best material within reach. Ben Buckley had not been braking three months when I called him up one day and asked him if he wanted a train.

"Yes, sir, I'd like one first rate. But you know I haven't been braking very long, Mr. Reed," he said frankly.

"How long have you been in train service?"

I spoke brusquely, though I knew without even looking at my service card just how long it was.

"Three months, Mr. Reed."

It was right to a day.

"I'll probably have to send you out on 77 this afternoon." I saw him stiffen like a ramrod. "You know we're pretty short," I continued.

"Yes, sir."

"But do you know enough to keep your head on your shoulders and your train on your orders?"

Ben laughed a little. "I think I do. Will there be two sections today?"

"They're loading eighteen cars of stock at Ogalalla. If we get any hogs off the Beaver there will be two big sections. I'll mark you up for the first one anyway, and send you out right behind the Flyer. Get your badge and your punch from Carpenter—and whatever you do, Buckley, don't get rattled."

"No, sir; thank you, Mr. Reed."

But his "thank you" was so pleasant I couldn't altogether ignore it; I compromised with a cough. Perfect courtesy, even in the hands of the awkwardest boy that ever wore his trousers short, is a surprisingly handy thing to disarm gruff people with. Ben was undeniably awkward; his legs were too long, and his trousers decidedly out of touch with his feet; but I turned away with the conviction that in spite of his gawkiness there was something to the boy. That night proved it.

When the Flyer pulled in from the West in the afternoon it carried two extra sleepers. In all, eight Pullmans, and every one of them loaded to the ventilators. While the train was changing engines and crews, the excursionists swarmed out of the hot cars to walk up and down the platform. They were from New York, and had a band with them—as jolly a crowd as we ever hauled—and I noticed many boys and girls sprinkled among the grown folks.

As the heavy train pulled slowly out the band played, the women waved handkerchiefs, and the boys shouted themselves hoarse—it was like a holiday, everybody seemed so happy. All I hoped, as I saw the smoke of the engine turn to dust on the horizon, was that I could get them over my division and their lives safely off my hands. For a week we had had heavy rains, and the bridges and track worried us plenty.

Half an hour after the Flyer left, 77, the fast stock-freight, wound like a great snake around the bluff after it. Ben Buckley, tall and straight as a pine, stood on the caboose. It was his first train, and he looked as if he felt it.

In the evening I got reports of heavy rains east of us; and after 77 reported "out" of Turner Junction and pulled over the divide toward Beverly, it was storming hard all along the line. By the time they reached the hill Ben had his men out setting brakes—tough work on that kind of night; but when the big engine struck the bluff the heavy train was well in hand, and it rolled down the long grade as gently as a curtain.

Ben was none too careful, for halfway down the hill they exploded torpedoes. Through the driving storm the tail-lights of the Flyer were presently seen. As the freight pulled carefully ahead, Ben made his way through the mud and rain to the head end and found the passenger train stalled. Just before them was Blackwood Creek, bank full, and the bridge swinging over the swollen stream like a grapevine.

At the foot of Beverly Hill there is a siding—a long siding, once used as a sort of cutoff to the upper Zanesville yards. This side-track parallels the main track for half a mile, and Ben, as soon as he saw the situation, drew his train to lay beside the passenger train, leaving the main line clear behind. It then became his duty to guard the track to the rear, where the second section of the stock train would soon be due.

It was pouring rain and as dark as a pocket. He started his rear-end brakeman back on the run with red lights and torpedoes to warn the second section well up the hill. Then, walking across from his caboose, he got under the lee of the hind Pullman sleeper to watch for the expected headlight.

The storm increased in violence. It was not the rain driving in torrents, not the lightning blazing, nor the deafening crashes of thunder that worried him, but the wind blowing a gale. In the blare of the lightning he could see the mighty oaks which crowned the bluffs whip like willows. The tempest swept down the Beverly cut as if it would tear the ties from under the steel. Suddenly he saw, far up in the black sky, like a star blazing, the headlight of Second Seventy-Seven.

A screaming whistle cut the wind; then another. It was the signal for brakes. The second section was coming down the steep grade. Ben wondered how far back his man had got with the bombs. Even as he wondered he saw a yellow flash below the headlight—the first torpedo. The second section was already well down the top of the hill. Could they hold the rails to the bottom?

Like an answer came shorter and sharper the whistle for brakes. Ben thought he knew who was on that engine; thought he recognized that whistle—for engineers whistled as differently as they talked. He still hoped and believed—knowing who

was on the engine—that the brakes would hold the heavy load; but he feared—

A man running up in the rain passed him. Ben held up his lantern—it was his head brakeman. "Who's pulling Second Seventy-Seven?" the man shouted hoarsely.

"Andy Cameron."

"How many air cars has he got?"

"Six or eight," yelled Ben. "It's the wind, Daley—the wind. Andy can hold her if anybody can. But the wind; did you ever see it blow so hard?"

Even while he spoke the cry for brakes came a third time through the wind.

A frightened Pullman porter opened the rear door of the sleeper. Five hundred people lay in the excursion train, probably all of them unconscious of this avalanche rolling down upon them.

The *Denver Flyer's* conductor ran up to Ben in a panic.

"Buckley, they'll telescope us!"

"Can you pull ahead any?"

"The bridge is gone."

"Get out your passengers," said Ben's brakeman.

"There's no time," the passenger conductor cried wildly, running off in a panic. The porter tried to speak. He took hold of the brakeman's arm, but his voice died in his throat; fear paralyzed him. Downwind came Cameron's whistle clamoring now in alarm. It meant the worst, and Ben knew it. The stock-train was running away!

Plenty of things could be done if only there was time, but there was hardly even time to think. The passenger crew were running about like men distracted, trying to get the sleeping travelers out. Ben knew they could not possibly reach a tenth of them. In the thought of what that meant, an inspiration came like a flash.

He seized his brakeman by the shoulder.

"Daley!" he cried, in a voice like a pistol crack, "get those two stockmen out of our caboose. Quick, man! I'm going to throw Cameron into the cattle."

It was a chance—single, desperate, but yet a chance—the only hope to save the helpless passengers in his charge. If he could reach the siding switch ahead of the runaway train, he could throw the deadly catapult on the siding and into his own train, and so save the sleeping travelers. Before the words were out of his mouth he started up the track at topmost speed.

The angry wind staggered him. It blew out his lantern, but he flung it away, for he knew he could throw the switch in the dark. A sharp gust tore half his raincoat from his back; ripping off the rest, he ran on. When the wind took his breath he turned his back and fought for another. Blinding sheets of rain poured down on him; water streaming down the track caught his feet and a slivered tie tripped him. As he fell headlong, the sharp ballast cut his wrists and knees like broken glass. In desperate haste he dashed ahead again. The headlight loomed before him like a mountain of flame. There was light enough now through the sheets of rain that swept down on him, and just ahead, the train almost on it, was the switch.

Could he make it?

A cry from the sleeping children stabbed his heart. Another breath, an instant floundering, a slipping leap, and he had it. Ben pushed the key into the lock, threw the switch and snapped it. To make deadly sure, he braced himself against the target-rod. Then he looked.

No whistling now; it was past that. He knew the fireman would have jumped. Cameron too? No, not Andy, not if the pit yawned in front of his pilot.

He saw streams of fire flying from many wheels—he felt the glare of a dazzling light—and with a rattling crash the ponies shot into the switch. The bar in his hands rattled as if it would jump from the socket and, lurching frightfully, the monster took the siding. A flare of lightning lit the cab as it shot past. He saw Cameron leaning from the cab window, with a face of stone, his eyes riveted on the gigantic drivers that threw a sheet of fire from the sanded rails.

"Jump!" shouted Ben, useless as he knew it was. What voice could live in that hell of noise? What man could escape from that cab now?

One, two, three, four cars pounded over the split rails in half as many seconds. Ben, running dizzily for life to the right, heard above the roar of the storm and screech of the sliding wheels a ripping, tearing crash, the harsh scrape of escaping steam, the hoarse cries of wounded cattle. And through the dreadful dark and the fury of the babel the wind howled in a gale and the heavens poured a flood.

Trembling from excitement and exhaustion, Ben staggered down the main track. A man with a lantern ran against him; it was the brakeman who had be[illegible] the torpedoes, and he was [illegible]ically.

They stumbled over a body. Seizing the lantern, Ben turned the prostrate man over and wiped the mud from his face. Then he held the lantern close, and gave a great cry. It was Andy Cameron—unconscious, true, but soon very much alive, and no worse than badly bruised. How the good God who watches over plucky engineers had thrown him out from the horrible wreckage only He knew. But there Andy lay; and with a lighter heart Ben headed a wrecking crew to begin the task of searching for any who might by fatal chance have been caught in the crash.

And while the crewmen of the freights worked at the wreck the passenger train was backed slowly—slowly and so smoothly—up over the switch and past, up over the hill and past, and so to Turner Junction, and around by Oxford to Zanesville.

When the sun rose the earth glowed in the freshness of its June shower-bath. The *Denver Flyer*, now many miles from Beverly Hill, was speeding in toward Omaha; and mothers told their little ones in the berths how close death had passed while they slept. The children did not quite understand it, though they were very grateful to That Man, whom they never saw and never would see.

One little boy—I wish I knew his name—went with his papa to the stationmaster at Omaha when the Flyer stopped, and handed that official his toy watch, and asked him please to give it to That Man who had saved their lives by running so far in the rain, and please to tell him how much obliged he was—if the stationmaster would be so kind.

So the little toy watch eventually came to our superintendent, and so to me; and I, sitting at Cameron's bedside, talking the wreck over with Ben, gave it to him. The big fellow looked as pleased as if it had been a jewelled chronometer. Indeed, that was the only medal Ben ever got.

The truth is we had no gold medals to distribute out on the West End in those days. We gave Ben the best we had, and that was a passenger run. But he is a great fellow among the railroad men. And on stormy nights switchmen in the Zanesville yards, smoking in their shanties, still tell of that night, that storm, and how Ben Buckley threw Second Seventy-Seven at the foot of Beverly Hill.

The Club Car

by Gorton T.H. Wilbur

HOWARD F. GREENE, president of the Railway & Locomotive Historical Society, tells us that the 1981 annual meeting, hosted by the Pacific Coast chapter, is shaping up as one of the most eventful ever held by that pioneer railfan group.

The meeting will be held from May 1-3 at Sacramento, Calif., and among those Pacific Coast chapterites who are finding each day 27 hours long between now and that date are Fred A. Stindt, chapter chairman, and Arthur Lloyd, convention coordinator. Fred thought he was busy when he and Guy Dunscomb were writing the recently released book on Western Pacific steam locos, passenger trains and cars, but this upcoming Sacramento affair tops everything.

According to Fred and Arthur, the chapter has been working very closely with the California State Department of Parks to dedicate the new $20 million railroad museum and complex for the opening day of the meeting on May 1. President Reagan (who dedicated the original museum when he was Governor) has been invited, and we understand there will be displays by all the major railroads. That date, incidentally, coincides with Amtrak's 10th anniversary and Arthur tells us Amtrak will be well represented with 10-12 pieces of equipment. In addition, steam enthusiasts will be happy to hear that SP's 4449 and Union Pacific's famous 8444 will also be on hand, not as a static display, but operating under their own power. There's a possibility, too (though it hasn't been firmed up as of this writing), that CN's 4-8-2 no. 6060 might join them. What a trio that would make!

We should mention that the chapter itself has a fine collection of steam locos and vintage cars it has acquired over the past forty years and they will be displayed, as Arthur writes, "in all their elegance, in settings of an era of which they were so much a part—the development of the West." Finally, plans have been completed for a railroad fair with live steam locomotives of all sizes that will participate in the pageant.

Meeting headquarters will be at the Holiday Inn in Sacramento, just one block from all the activity. For more information, contact Arthur Lloyd, 20 Arapahoe Court, Portola Valley, Calif. 94025.

TALKING about annual meetings and conventions, Alan Vaughn, head of National Railway Historical Society, is still taking bows for a grand outing last July in Toronto and rightfully so. Everyone had a great time. And it isn't that far off for the 1981 convention being hosted at Louisville, Ky. Keep after your local chapters for late developing news.

A BRIGHT PART of any day is when the mailman brings us Bob Richardson's *Iron Horse News* published by the Colorado Railroad Museum. It's a real fountainhead of interesting rail doings. In the latest issue, Bob reports that another important piece of equipment has been added recently to the museum. Western Weighing & Inspection Bureau gave CRM their old scale test car. The four-wheel car has been seen the past 50 years or so all over the state of Colorado.

Last summer (who'll ever forget it!) was the third hottest on record in the Denver area, says Bob, but still volunteers braved the heat to work on the right-of-way around the museum. Rebuilding the South Park engine's tender was finished, and the long-awaited wooden pilot was fitted to loco 191, the work of Jim Dunlop. Bob also tells us that the White Sulphur Springs & Yellowstone Park Railway is no longer listed in the *Official Guide*, a victim of that area where the Milwaukee Road closed down. The 23-mile shortline needed 36 miles of the Milwaukee to reach the BN.

Congratulations are very much in order to Ronald C. Hill and Alex McKinney. The Colorado Railroad Museum trustees have elected Ron president and Alex vice-president.

WE'RE PLEASED to report that the last survivor of the New York Central's fleet of T-motors will be preserved, thanks to the Mohawk & Hudson chapter, NRHS, which bought it from Amtrak. The 1926-built T-3, no. 4678, is being stored at Amtrak's Wilmington shops and it is hoped she will be able to join the chapter's S-1 no. 100, first of the NYC's famous electric S-motors.

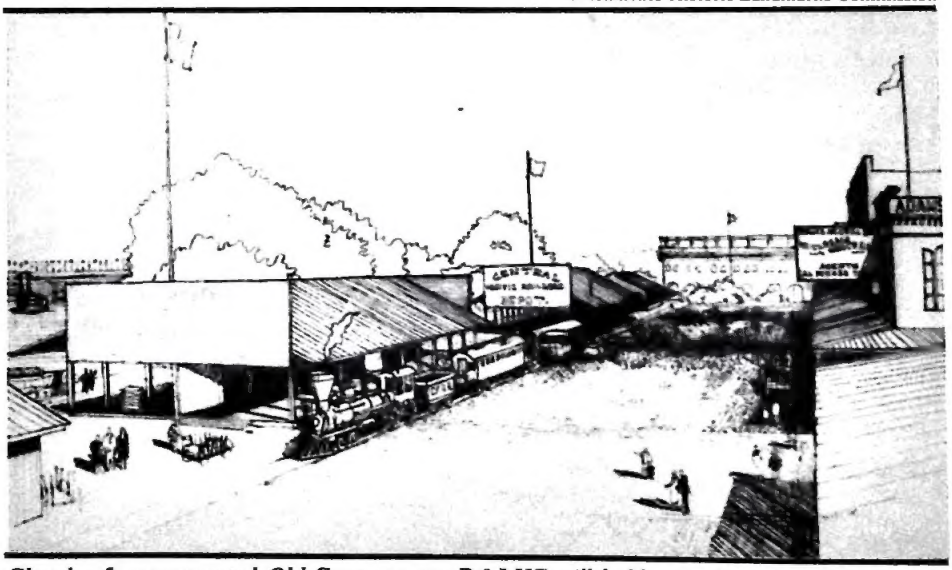
The chapter plans to display no. 4678 at the Altamont Fair near Albany, where no. 100 is exhibited once a year, and, later on, to include both locos in a full-scale railroad museum being planned for the area. Unfortunately, she will have to stay at Wilmington for the time being since it was discovered that more work is needed on the T-motor's axles and this will have to be done before she can be moved to New York State.

The chapter has been appealing to the railfan community to help toward the cost of no. 4678's repair and restoration. We are told that anyone making a contribution (they are tax-deductible) will receive a descriptive data sheet on the locomotive. Those contributing $10 or more will also get an 8 × 10" photo from the original builder's negative. Checks should be made payable to Mohawk & Hudson Chapter, NRHS, and sent to the chapter's T-Motor Fund, care of the chapter at P.O. Box 523, Schenectady, N.Y. 12301.

ART HAMILTON, editor of Tacoma-NRHS' fine newsletter, *The Trainsheet*, reports big doings in Alberta, Canada. Ex-Canadian National's 4-8-2 no. 6060, after a stellar performance at the NRHS convention last year, was tied onto a westbound freight along with a couple of diesels and headed for the Alberta Pioneer Railway Museum located about 12 miles from Edmonton. The "Bullet Nose Betty" has been used on fantrips out of Edmonton and Calgary and, now that it has been retubed at the museum, should be ready for excursions in 1981. The museum's other CNR locomotive, ten-wheeler no. 1392, also has been retubed and was run province-wide last October on excursions honoring the 75th anniversary of the arrival of the Canadian Northern Railway.

Send news to me c/o *Railroads Illustrated*, 40 East 66th Street, New York, N.Y. 10021.

Sacramento Historic Landmarks Commission



Sketch of reconstructed Old Sacramento; R&LHS will hold annual meeting there May 1.

Railroad Reviews

by Albert Herskovits

America's Railroads:
The Second Generation
Don Ball, Jr.
216 pages, 10¼×11¼", hardcover, $34.95
W.W. Norton & Co., 1980

Don Ball, Jr., has established himself as one of America's foremost railroad photographers; that he is a skillful chronicler of the changes the last twenty years have wrought on the rail scene is also demonstrated in this lavishly illustrated volume. The book may seem expensive, but it is more than justified by the fact that there are over 280 color photographs of some 120 railroads and transportation agencies, sensibly divided into five geographic regions.

The bulk of the book consists of these photos; the captions accompanying them place individual railroads and their motive power within the overall context of the two decades of the 60's and 70's. Steam power is represented, too, though by 1960 there was not much mainline steam left. Still, there are photos of Canadian Pacific, Georgia Pacific Lumber, Buffalo Creek & Gauley, U.S. Army and N.&W., as well as numerous excursion trains since.

Mention should be made of the work of two fine photographers who contributed much to this book: Jim Boyd and T.J. Donahue. Both men have an unerring eye for the unusual. Many of their shots are superbly composed and convey the sense of life and motion a heavy freight train can bring to a quiet country setting. We were pleased to see that signals, trackside structures and railroad workers are not neglected in the photos, for railroads consist of these other elements also. Would-be rail photographers could learn much from studying this book.

Color reproduction throughout is excellent and a nice idea is the inclusion of regional rail maps which pinpoint where each individual photograph was taken.

The Electric Way
Across the Mountains
Richard Steinheimer
168 pages, hardcover, $32.00
Carbarn Press, 1980
(Box 255, Tirburon, Calif. 94920)

Unlike its more prosperous competitors the [illegible] never seems to have been blessed with much good fortune. As the last transcontinental railroad to connect Chicago with the West Coast its Pacific Northwest route failed to haul the volume of freight its builders had hoped for, and the opening of the Panama Canal in 1914 cut into traffic even further. Yet the Milwaukee is a road much beloved by railfans; one reason is undoubtedly the varied and colorful motive power that served so well in the electrified portions of its trackage, chiefly in Montana and Idaho.

This book tells the story of that electrification in pictures and captions, from the early days of construction down to recent times. There are many good historical photos supplemented by the work of such photographers as Ron Nixon, Dr. Philip Hastings, Don Sims, Max Tschumi (with some fine winter shots), Ted Benson, and others. The scenery of course is magnificent and the famous bi-polars and Little Joes are all shown in abundance.

A better job could have been done on the layout; the placement and size of photos on each page is often the same and gets to be repetitive after a while. Also, there is no roster, almost a must in a book of this sort. And the price seems a bit high for the number of pages of black-and-white-only photos. Nevertheless, most Milwaukee fans will appreciate the comprehensive coverage of the many electric engines that for over half a century faithfully worked their way across those mountains.

Virginia & Truckee Locomotives
Karl R. Koenig
87 pages, 8½×11", softcover, $14.00
Chatham Publishing Co., 1980
(Box 283, Burlingame, Calif. 94010)

Written by the editor of *Pacific News*, this book recounts the 112-year history of this colorful Nevada shortline primarily from the point of view of its motive power. Originally built to serve the gold and silver mines of the Comstock Lode around Virginia City, the road fell on hard times when the mining boom ended. Fortunately for steam enthusiasts, though, the V&T had a habit of storing many of its old locomotives in the Carson City, Nev., enginehouse so that today 12 of the road's 32 steam engines are still preserved or in actual use.

Most of the book consists of photos and a brief history of each engine and its current disposition. There are not many action shots and some views do not reproduce too well, though this is perhaps understandable since some photos date back to the 1870's. Movie buffs will be pleased to see the locomotives that were used in such Hollywood productions as *Union Pacific*, *Young Tom Edison*, and TV's *Wild Wild West* series.

The Railroad in Literature

Thomas Wolfe (1900-1938)

All day, under a wet gray sky of October, Oliver rode westward across the mighty state . . . Rain fell steadily. A brakeman came draftily into the dirty plush coach and emptied a scuttle of coal into the big stove at the end. High empty laughter shook a group of yokels sprawled on two turned seats. The bell tolled mournfully above the clacking wheels. There was a droning interminable wait at a junction-town near the foot-hills. Then the train moved on again across the vast rolling earth.

Dusk came. The huge bulk of the hills was foggily emergent. Small smoky lights went up in the hillside shacks. The train crawled dizzily across high trestles spanning ghostly hawsers of water. Far up, far down, plumed with wisps of smoke, toy cabins stuck to bank and gulch and hillside. The train toiled sinuously up among gouged red cuts with slow labor. As darkness came, Oliver descended at the little town of Old Stockade where the rails ended. The last great wall of the hills lay stark above him. As he left the dreary little station and stared into the greasy lamplight of a country store, Oliver felt that he was crawling, like a great beast, into the circle of those enormous hills to die.

—*Look Homeward, Angel*, 1929.

(Readers are encouraged to send in quotations for possible use in this department.)

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ORIGINAL Kodak-processed Kodachrome slides, 120 b&w negatives. Lists, sample, $1.—T.N. Colbert, 9404 N. Church #316, Parma, OH 44130.

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